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ORIGINAL ARTICLES

RELATION OF MEDICAL TO SURGICAL TREATMENT OF GASTRIC AND DUODENAL ULCER

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THAT there are excellent results obtained in certain cases of gastric and duodenal ulcers on the one hand with medical treatment, and on the other with surgical treatment, no one can doubt. But it is equally certain that the decision as to which ulcer should be submitted to which treatment has been in the past neither unanimous nor easy to make. There have been those surgeons who have been enthusiastic for immediate operation on ulcers, and those medical men who were at times perhaps too prone to prolong medical treatment beyond the point where the patient should have been treated surgically.

The evils arising in this connection are often, we believe, not the result of stubborness on the part of either the surgeon or the medical man, but a lack of coöperation between the two, and perhaps often the lack of a logical plan as to the relation of the medical to the surgical treatment of gastric and duodenal ulcer.

For the above stated reasons, we have attempted to establish in our Clinic in the past two years, with the association of a gastro-enterologist, a definite plan as to the relation of the medical to the surgical treatment of gastric and duodenal ulcer, and to care for all of our cases under this plan. This plan of management of gastric and duodenal cases was established by one of us in order that the full benefits of both methods of treatment might be applied to a given case. Its medical aspect tends to follow the plan established by Dr. Bertram W. Sippy of Chicago because that plan possesses very sound reasons for its use and very logical indications for its application.

There are certain basic facts concerning these conditions which may be stated as follows:

It is essential that every measure be used to arrive at and confirm the diagnosis of gastric and duodenal ulcer. It is admitted that medical treatment is the desirable method of treating acute duodenal and gastric ulcers.

We believe that it must be admitted that it is of advantage to try out the efficacy of medical treatment on a given case of chronic duodenal ulcer, with that patient in the hospital under careful observation, surgery being instituted promptly when its indications occur.

We believe that unless the patient is in the hospital directly under control, in many instances medical treatment will not receive a fair trial. There is no question in our minds but that rest plays a very important part in the treatment of ulcer. We have been convinced also that the most well meaning patients are often unable to carry out a plan of medical treatment except under rigid hospital discipline. For this purpose, we have insisted that the patient go to the hospital for a period of study in order that not only may all necessary examinations be made upon him, but that the type of distress and the effect of various measures on it may be noted.

We believe that as long as the patient can be kept free from symptoms, and from the indications for surgery, which will be discussed later, medical management with a rigid or modified diet may safely be continued.

Surgery is divided roughly into two groups, (1) gastro-enterostomy with or without excision of the ulcer, or pyloroplasty in the same way with or without excision of the ulcer, and (2) radical surgical procedures such as pylorectomy and partial gastrectomy. The conservative procedures have a relatively low mortality, not over 1 to 2%, but have a relatively high percentage of failure to relieve, 6-15%, and about 3% recurrent gastro-jejunal ulcer. Pylorectomy and partial gastrectomy on the other hand show a much higher percentage of cures, but have a high mortality, 6 to 10%+.

With the above stated views in mind, we have established the following routine in our Clinic as to the relation of the medical to the surgical treatment of gastric and duodenal ulcer. If the patient is suspected of ulcer, he is sent to the hospital for diagnosis, and if demonstrated, he is informed that he must stay in the hospital in bed on rigid diet for a period of 3 to 4 weeks; that if he can be kept free from symptoms and not show evidences of ulcer activity demanding surgery, to be described later, he may then leave the hospital upon a modified diet; that as long as he can continue satisfactorily on this diet, he may safely avoid surgery. But should he not be freed from symptoms or evidences of an active ulcer, either while in the hospital upon a rigid regime, or after leaving the hospital and upon a modified one, he must then accept surgery or seek advice and management elsewhere, accepting the entire responsibility for such a decision. This we believe to be a conservative and logical position to take since the patient is assured by it a fair trial of non-operative treatment and, that failing, approaches surgery after having exhausted the possibilities of the conservative method of treatment adequately applied. This is the course we feel sure that any of us as individuals would and does elect if the problem arises in our own case, or in the case of our families.

Our plan then after the patient enters the hospital as stated above is first to ascertain whether or not the patient has a gastric or duodenal ulcer and second, whether or not it is a case which should be immediately submitted to surgery, or one that may properly be treated medically.

The diagnostic routine for upper abdominal pathology as well as the therapeutic management of duodenal ulcer has been adopted from that of the Sippy Clinic in Chicago. The first and one of the most important measures in the diagnostic routine is the taking of a careful history. In our histories we stress the following points:

(1) The date of onset of the distress.

(2) Whether the distress is constant in progress or is characterized by remissions.

(3) Whether the distress of the chief complaint has changed during its course or whether there has been any distress of a different character than that of the chief complaint.

(4) Whether the time of the occurrence of distress is constant in its relation to food taking.

(5) The general character of the distress; i. e., its location, whether finger point or diffuse; radiation, if present; whether steady and constant without intermissions, or wave-like or disappearing entirely and recurring; whether constant in location during attack or shifting; whether of gradual onset and increasing to maximum and then decreasing or of sudden onset and of constant severity.

(6) The effect of relief measures, such as food taking, soda, heat, bowel movement, belching or flatus, vomiting, hot or cold foods, various kinds of foods, exercise and rest.

(7) The presence of other symptoms, such as loose stools, urinary symptoms, nausea and vomiting, jaundice, rumbling and gurgling, fever.

(8) A chronological description of a typical day with distress, describing the time of onset and of relief, with all details as to character, relief, etc.

(9) Description of bowel function, number and character of stools and use of cathartics.

The points in such a history which point toward a diagnosis of ulcer are as follows:

(1) Remissions in the past history. (An ulcer history may have remissions in the earlier periods with later continuity, but the typical ulcer case has remissions at some stage.)

(2) The general character of the ulcer distress, when uncomplicated, is finger point and constant in location, (at times radiating to the back) and steady during the attack, usually of gradual onset, increasing to a maximum and then decreasing. The time of occurrence of distress in the uncomplicated ulcer is always constant in the same individual in relation to food taking.

(3) Food taking, alkalies and vomiting, if adequate, relieve the distress of an uncomplicated ulcer.

Following the history taking and general physical examination certain test-out measures are used. Upon admission to the hospital the patient is immediately placed upon a regular meat-free diet and all stools are examined for blood. The diet is not otherwise restricted because it is desirable that distress be produced in order that diagnostic relief measures be tried. With the occurrence of distress, one or several of the following relief measures are tried;

(1) Therapeutic aspiration of the stomach.

(2) A meal containing sufficient albumen to relieve ulcer distress. (This meal is given cold inasmuch as warm food might relieve other types of distress, such as that caused by an irritable bowel.)

(3) Alkalies, usually 50 gr. calcium carbonate and 30 gr. sodium bicarbonate.

On the second day in the hospital, an Ewald test meal is given early in the morning and aspirated one hour later. The amount aspirated, the food content, the amount of free Hcl and of total acidity and the presence or absence of occult blood are noted. The majority of ulcer cases show a free Hcl at this point in digestion above 50 and a total acidity above 70. Occult blood may or may not occur in the gastric contents in the presence of ulcer.

After aspiration of the Ewald meal, a motor meal is given and aspirated seven hours later. The presence of more than 50 c. c. at this time, in the absence of a cause for acute retention, is diagnostic of obstruction. This test we consider of more value than X-Ray evidence of obstruction inasmuch as barium leaves the stomach more readily than food.

On the third day in the hospital, the patient is fluoroscoped. Filling defects, hypermotility, and tenderness to palpation during fluoroscopy are additional evidence for ulcer. Filling defects of the posterior wall of the duodenum are sometimes observed with palpation during fluoroscopy when they are not seen in the serial plates. Serial plates are made if there is any evidence of pathology and later carefully studied.

The above measures constitute the diagnostic routine. It is seen that with this routine the five points of compatibility in uncomplicated ulcer distress which are emphasized by Dr. Sippy are constantly stressed; namely, 1st, that with the normally empty stomach there is no distress; 2nd, that during distress the free HCl acidity is higher than that of one hour after the Ewald meal; 3rd, that distress is relieved by an adequate quantity of alkali; 4th, that the distress is relieved by an adequate quantity of food; 5th, that the distress occurs in the same individual at a constant time after food taking.

With the diagnosis of ulcer of the stomach or duodenum made, the patient is at once put upon ulcer management. This consists in the accurate neutralization of gastric acidity for a period of several months or a year. The patient is kept in bed in the hospital for three weeks on a diet which is gradually increased from the hourly milk and cream feedings to these plus a fairly extensive bland diet. The alkaline powders are given at hourly intervals from morning to 9:30 at night and no food or drink is given during the night. Magnesium is administered only in sufficient quantity to produce one formed stool daily, the rest of the alkalies being given in the form of calcium carbonate and sodium bicarbonate. The patient is at absolute rest in bed for three weeks and during the fourth week gradually allowed to resume his normal activity. Aspiration of the stomach is made routinely on certain days at 4:30 P. M., and at 9:30 P. M. to determine whether there is accurate neutralization. On certain other days during the week, after the stomach has been emptied at 9:30 P. M., another aspiration is done at midnight to determine the presence or absence of excessive coninued secretion, a condition which if allowed to continue, frequently nullifies the effect of the neutralization during the day. If such a condition exists, accurate neutralization during the entire 24 hours for a few days or a week is usually sufficient to relieve the condition.

Patients who have had hemorrhages even though of very recent occurrence are placed upon hourly milk and cream feedings with accurate neutralization. In their cases the transition to a generous diet is somewhat slower but in general the management is the same.

In the medical management of gastric ulcer due consideration is given to the fact that at any stage in such management indications may arise which would make a change to surgical treatment imperative. We are prepared to make such a change with the occurrence of any of the following conditions:

(1) Perforation with its characteristic symptoms. It must, however, also be borne in mind that the symptoms of perforation are not always characteristic and a leakage with walling-off adhesions is occasionally first diagnosed by fluoroscopy.

(2) Symptoms suggesting the possibility of carcinoma. Such symptoms are the continuation of pain after two or three days of accurate neutralization, or the continuance of occult blood in the stools after two weeks of accurate neutralization. Suspicion of the presence of carcinoma is, of course, intensified if the lesion is on the gastric rather than the duodenal side of the pylorus, if the patient is not youthful, if the course of the condition has been short*, and if cachexia or characteristic blood findings are present. During the diagnostic routine, the absence of free HCl in the gastric analysis. and the presence of lactic acid and long bacilli with or without a tumor mass, provoke grave suspicion of the presence of carcinoma; but even without such findings, as stated above, the continuation of distress or hemorrhage after accurate neutralization is sufficient reason for suspicion of carcinoma. The only other cause for a continuance of bleeding is the presence of an old callused duodenal ulcer with a vessel protruding from its centre, which cannot heal and will continue to bleed.

(3) Deformities of stomach or dudodenum which are due to cicatrix, chief among which is cicatricial obstruction of the pylorus. We believe that if pyloric obstruction is not adequately relieved in three to four weeks of accurate management, the obstructing tissue is mostly cicatricial and such a case is unfavorable for medical treatment inasmuch as obstruction due to firm cicatricial tissue does not readily yield to healing management. Other deformities such as hour glass stomach and perigastric adhesions, of course require surgery, when causing symptoms.

(4) Occasionally, the complication of excessive continued secretion of free HCl during the night is unrelieved by 24 hr. management and in such cases healing is not attained by medical management and surgery is required. Such a condition is rare, however, as most cases which show excessive continued secretion at night, yield readily to accurate 24 hr. management.

(5) Failure after a fair trial of medical management to relieve ulcer symptoms or to change the X-Ray picture of the ulcer.

(6) It may be necessary under certain conditions to submit patients to surgery without preliminary trial of medical measures because of their need such as family support and the necessity for their returning to earning capacity as soon as possible. We have not as yet seen this indication, and in this day of service, it should be possible to provide means for a month's hospital stay if necessary in practically any case, so that even those patients of limited means may not be submitted to surgery until conservative measures have been exhausted.

With a plan such as we have outlined, 1st, for the accurate diagnosis of gastric and duodenal ulcer, 2nd, for the medical management of this condition as long as medical management is justified, and 3rd, for the interposition of surgical treatment whenever definite indications for it are present, we feel that coöperation between medicine and surgery in this condition is attained, and that if surgery is undertaken after medical management, it will be safer, easier and followed by fewer complications.

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*Carcinoma with its progressive development and lack of remissions is short in course as compared with ulcer.

We believe that operative procedures upon a stomach or duodenum that has been at rest and freed from the acute reaction to an active ulcer are less dangerous, less liable to leak and will result in fewer post-operative recurrences. The custom of operating upon gastric and duodenal ulcers which we have in the past seen employed without attempting to limit the activity of the ulcers, results in incisions and resections being made through regions of the stomach showing reaction to the ulcer activity, and sutures are often introduced in tissue showing oedema, induration and often true infection.

While under medical management, if indications for surgery arise, the ulcers and the surrounding tissue, although not entirely without induration and reaction, are in many cases quite free from it, and practically all ulcers are in better local condition for surgical measures than are those operated with no previous preparation.

Within the last few years, due perhaps to the influence of the Clinics of Haberer and Finsterer particularly, there has been a tendency to forsake the operation of gastro-enterostomy and to employ gastric resections even in the benign gastric, pyloric and duodenal lesions. That the immediate and late results of resections for gastric, pyloric and duodenal ulcer are excellent is admitted; that they possess a definite mortality, as has already been stated in this paper, no one who has frankly reviewed his statistics in this group of cases, can fail to recognize. When one does pylorectomy or partial gastrectomy for a benign gastric or duodenal lesion, in itself perhaps only distressing, and holding little chance of causing death, he must do so only after having exhausted all the medical and preoperative possibilities of determining the indications for resection such as carcinoma, chronic ulcer with an open bleeding vessel, and erosion into other organs. Particularly in those pyloric and duodenal ulcers, which are adherent posteriorly preventing the delivery of the pylorus, if there be no or little question of malignancy. he must seriously consider the employment of gastro-enterostomy as a curative operation, or as a preliminary procedure in partial gastrectomy or pylorectomy. While persistence of symptoms with gastro-enterostomy does occur in a certain percentage of cases, we all agree that a persistence of symptoms in approximately ten percent of the cases is far superior to a mortality in many hands approaching ten percent following radical removal of the first portion of the duodenum, the pylorus and the pyloric portion of the stomach. It is our belief that failures to cure pyloric and duodenal ulcer with gastro-enterostomy, will be but little if any higher than the mortality of the more radical gastric resections, and that since anastomosis is a necessary part of radical resection, and the natural preliminary measure for that procedure, radical resections unpreceded by gastro-enterostomy may justifiably be undertaken only upon malignancy, ulcers strongly suggesting its presence, chronic bleeding ulcers which cannot be controlled otherwise, and upon those freely movable pylori (in cases where resection is indicated) which can be delivered well outside the abdominal wall and resected with ease and despatch.

Conclusions:

(1) It is desirable to exhaust the possibilities of adequate medical measures for gastric and duodenal ulcers before submitting them to surgery.

(2) Medical measures in gastric and duodenal ulcers, in addition to their ability to relieve, aid in confirming or disproving the diagnosis and, furthermore, are of real value in certain cases in demonstrating the need for surgery.

(3) Preliminary medical management with rest in bed makes operation safer and easier in many cases later to be submited to surgery.

(4) Gastro-enterostomy even with its possibility of failure to cure and of subsequent gastro-jejunal or jejunal ulcer is still the most useful of all the gastric operations. The fact that when its employment as a curative measure in gastric or duodenal ulcer fails, it still represents an already accomplished part of the radical operation makes it then only a complete failure when gastro-jejunal or jejunal ulcer follows its employment.

(5) Radical resections should be reserved for those cases where the indications justify the risk of its employment as a primary measure.

CENSUS OF PUBLIC HEALTH NURSING IN CONNECTICUT

There are 302 nurses in the state who are doing generalized nursing. During the last year the total amount spent by the 88 nursing services employing these nurses was $671,103.48. Of this amount $180,135.20 was appropriated by the towns. $94,327.45 of this total was paid by patients for the nursing service which they received. The remaining amount was made up by money received from the sale of tuberculosis seals, from community chest drives, by money from the Red Cross and other sources such as membership drives, etc. The total figure of $671,103.48 does not include the money which was paid for school nursing service. There are 93 nurses doing full time school nursing, making in all 395 nurses employed locally.

MEDICO SOCIAL ASPECTS OF HEART DISEASE

BY BESS LYNDE RUSSELL,

Social Service Department, Massachusetts General Hospital

FOREWORD

The Social Service Department of the Massachusetts General Hospital, in the course of its eighteen years, has definitely sought to identify its policies with the policies of the hospital. The fundamental principle on which the hospital was established is expressed in the threefold purpose of: (1) Care of Patients; (2) Teaching; and (3) Research. The Social Service Department has adopted these purposes also. The care of patients has always been its prime concern. Teaching was established as a policy in the early years but became a recognized function in 1912.

During the past ten years several brief studies have been made, jointly with the physicians, into the medico social aspect of disease.

In July, 1922, an anonymous donor generously gave the Department the sum of one thousand dollars to be used for medical social research.

Several possible subjects for study presented themselves, but it was decided that it would be best to choose one in which there was a very genuine interest on the part of the medical staff and the assurance of medical coöperation.

It was, therefore, decided to study the medico social aspect of Heart Disease. This was done chiefly because we had the interest and coöperation of Dr. Paul D. White of our Cardiac Clinics. It was particularly pertinent not only because of our need for bettering our own work, but because of the organization of the Boston Association for the Prevention and Relief of Heart Disease, the program for which had not yet been determined.

The accompanying report is the result of four months' work by Mrs. Bess L. Russell in 1923. Three advanced students have done parts of the study under Mrs. Russell's direction.

The report is submitted with very sincere gratitude to the generous donor who made the study possible. **Ida M. Cannon.**

INTRODUCTION

A winsome lass of seven years crippled for the rest of her short life by rheumatic heart disease; a lad of eleven with chorea and early heart disease with nowhere to go, not even home, to spend in bed the six months that somehow must be spent there; a young man of nineteen with badly damaged heart who must earn his living but who has never received instruction how best to earn it without hurting his heart more; a young wife with child who needs help in her housework and medical supervision during her pregnancy so that the mitral stenosis from which she is suffering may not prevent her from having the longed-for babe; a man of thirty-five years with a family to support, who should be in the prime of his life, so crippled by heart disease that he must give up his laborious occupation and begin an easier life which he is helpless to discover; a man of forty-five suddenly and fatally struck down by syphilitic cardiovascular disease which should have been prevented twenty years before; a woman of fifty with heart failure due to exophthalmic goiter never properly treated; an old man, a helpless invalid alone in the world whose heart, damaged as it is, may beat on for years—this is the procession on the screen of life which has appealed for years for study and action. It is this procession of figures that has stimulated the study recorded here. The report is but an introduction in itself to the various phases of the subject. It points the way.

The able presentation of some of the problems in heart disease at the Massachusetts General Hospital, in Boston, and in the country at large will be found in the pages of this report of a survey made by Mrs. B. L. Russell and her assistants during the past few months.

Paul D. White, M. D.

MEDICO SOCIAL ASPECTS OF HEART DISEASE

1. Aim of This Study

The aim of this study is four-fold:

1. To indicate the scope of the cardiac problem at the Massachusetts General Hospital, medically and socially.
2. To secure data from such industrial and philanthropic agencies whose function is concerned with the medico social treatment of "cardiacs" and to secure their coöperation in a more concerted attack upon heart disease by the medical and social forces of the community.
3. To discover ways and means of helping cardiac and pre-cardiac patients more effectively, and to stimulate the study of means of prevention of heart disease as well as of its treatment.
4. To present some essential social phases of the cardiac problem to the Boston Association for the Prevention and Relief of Heart Disease.

The material has been gathered in two ways: (1) by study of the medical and social problems at the Massachusetts General Hospital; and (2) by consideration of such problems in other hospitals and communities.

2. Prevalence of Heart Disease

Before turning attention to the recent studies carried on at the Massachusetts General Hospital, it is well to gain a bird's-eye view of the scope of cardiac disease in this country. In terms of suffering, economic stress and death, it looms greater than tuberculosis. Statistics show that within a five-year period heart disease has increased, whereas tuberculosis has decreased. The following figures, given us by Dr. Haven Emerson,[*] present these two facts vividly.

Dr. Louis I. Dublin, Ph.D.,[**] Statistician of the Metropolitan Life Insurance Company, has also vividly pictured the magnitude of cardiac disease, by means of statistics, as follows:

2% of the persons examined by insurance companies are rejected because of serious heart defects.
2% of industrial workers are found on careful examination to be the subject of serious heart defects.
2% of those examined in the draft and camp examinations by Army Medical Examiners were rejected on account of serious heart defects.
1½-2% of the children examined in the schools show serious heart defects.

Although the statistics above may be somewhat of an exaggeration, since they are taken from life insurance examinations, which are overcautious, we may fairly estimate that from 1 to 2% of the population, or in the United States from 1,000,000 to 2,000,000 persons suffer from heart disease.

DEATH RATE PER THOUSAND OF POPULATION

Year	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920
All causes	15.30	14.41	14.21	14.03	13.93	13.89	13.70	16.71	13.85	12.93
Four cardiac diseases	2	2.01	2.07	2.11	2.17	2.13	2.17	2.32	2	2.13
Tuberculosis (all forms)	1.89	1.96	1.99	2	1.96	1.82	1.88	1.84	1.52	1.26
Cancer	.79	.82	.83	.87	.88	.88	.90	.89	.92	.93

Dr. Cary Eggleston[†], Committee on Education, Association for the Prevention and Relief of Heart Disease, New York City, has graphically stated the mortality resulting from heart disease as follows: "Not less than 200,000 persons die annually in the United States from disease of the heart; which means that there is one death from this cause every three minutes of the twenty-four hours." Dr. Eggleston adds this important fact: "Not only does it rank first among all the causes of death, but heart disease cuts in half the life span of its victims, and it is to be remembered that heart disease is a disease of youth and early adult life."

Dr. Burton E. Hamilton[‡], of the Boston City Hospital, has drawn roughly the following startling conclusion, as a result of a study of 500 cardiacs referred to his clinic.

If there are 150,000 children in the Boston Public Schools, he estimates that:

1%, or 1500, have rheumatic heart disease, 70% of whom will die within ten years.
½%, or 750, have potential rheumatic heart disease.

3. THE ATTACK ON THE PROBLEM

The foregoing statements in relation to the prevalence, increase and mortality of heart disease, plus the alarming evidence that it is causing serious handicap and death among children, forces the question, "What is being done about it?"

It has seemed feasible to try to answer this question by the consideration of five phases of the cardiac problem as related to: (1) Cardiac clinics; (2) Convalescent and chronic care; (3) Schools and industry; (4) Philanthropic resources; and (5) Growth of organized care for cardiacs. The relation of these problems to the trend of modern medicine is worth consideration, for the growth of organized medicine has revealed new ways of combating heart disease. Twenty-five years ago the family physician was the preëminent figure in the medical field (and still renders invaluable service), but with the demand of the urban population, hospital and dispensary development has been stimulated with the following results: Opportunity for study of pathological conditions among hundreds of patients at our large hospitals has fostered concentration on types of disease; this, in turn, has tended toward the grouping of patients for study, and thus special clinics have been formed. Naturally, reflection on such medical study has aroused interest in group discussion, and thus various local and national associations have been created for the purpose of prevention and relief of certain diseases. This is typical of the growth of work established for cardiacs in some of the large cities of this country. In Boston eight cardiac clinics (at the Boston City Hospital, House of the Good Samaritan, Boston Dispensary, Boston Lying-In, Peter Bent Brigham, Massachusetts General (2) and Children's Hospitals have been established and have been the nucleus for the organization of the Boston Association for the Prevention and Relief of Heart Disease. The Association for the Prevention and Relief of Heart Disease, national in scope, was organized as recently as May, 1923.

4. SPECIAL INVESTIGATIONS AT THE MASSACHUSETTS GENERAL HOSPITAL[*]

Before turning to the wider field in Boston, New York and elsewhere, a brief review of some special investigations carried on at the Massachusetts General Hospital during the course of this study may furnish a cross-section of some of the outstanding cardiac problems awaiting solution throughout the country. Five special studies have been made dealing with the cardiac problem at the Massachusetts General Hospital, in its medical and social aspects; investigations on the familial incidence of rheumatic heart disease; and cost of heart disease to industrial patients.

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[*] Shattuck Lecture: The Prevention of Heart Disease—A New Practical Problem, by Haven Emerson, A.M., M.D., Boston Med. and Surg. Jour., June 9, 1921, Vol. 184, No. 23.

[**] Heart Disease—Prevalence—Effect on Longevity—Mortality, by Louis I. Dublin, Ph.D.; a pamphlet published by the Association for the Prevention and Relief of Heart Disease.

[†] Heart Disease as a Public Health Problem, by Cary Eggleston, M.D.

[‡] Brief analysis of 500 cases referred to the Boston City Hospital, O. P. D. Heart Clinic, by Burton E. Hamilton, M.D., Boston, and Joseph E. Hallisey, M.D., Boston.

[*] Mrs. Russell was assisted in this study by Miss Fannie Whitman, a special student in the Department.

4A. SIZE OF CARDIAC PROBLEM AT THE MASSACHUSETTS GENERAL HOSPITAL

To determine the scope of the cardiac problem at the Massachusetts General Hospital, an analysis was made of the medical diagnoses of all cardiacs (so diagnosed during the year 1921) who were patients in the wards and Out-Patient Department.

Total number of cardiac patients (diagnosed as such) at the Massachusetts General Hospital during 1921	1082
a. Known to the Out-Patient Department alone	709
b. Known to the House alone	217
c. Known to both O. P. D. and House	156

4B. DIAGNOSES

In the analysis of the diagnoses of these cardiac patients the classification used by Dr. Paul D. White was made the basis of a study to show:

1. *Etiology*, or cause of the heart condition.
2. *Structural change*, or structural damage to the heart.
3. *Functional change*, or the capacity of the damaged heart to do its work.

Full tables of the inter-relations of etiological, structural and functional diagnoses have been made, but for the purpose of this study Dr. White has interpreted this data as follows:

Of a group of 480 of the cases studied, the etiological type was given as rheumatic in 251 (=52%); arteriosclerotic in 109 (=23%); syphilitic in 51 (=11%); hypertensive in 42 (=9%); congenital in 20 (=4%); nervous heart in 6 and thyroid in 1. The community at large certainly shows a higher relative incidence than this of arteriosclerotic and of thyroid heart disease.

Mitral stenosis occurred in 165 of the 251 rheumatic cases; organic mitral regurgitation in 90; they were recorded as combined in 42 of these. In this same rheumatic group, aortic regurgitation was found in 56 cases, aortic stenosis in 20, and pericarditis in 8, 3 of which were adhesive. In the group of 109 arteriosclerotic cases there were 7 showing aortic regurgitation. In the group of 51 syphilitic cases aortic regurgitation occurred in 31 and aortic aneurysm in 7.

In this group auricular fibrillation occurred in 54 cases, 22 of which were rheumatic and 20 arteriosclerotic; heart block occurred in 9, paroxysmal tachycardia in 15, auricular flutter in 3 and angina pectoris in 42.

4C. RESIDENCE OF PATIENTS

In reviewing the thousand medical histories an analysis of the data in relation to the residence of patients was made. 64% came from the Metropolitan district while 41% came from Boston to the wards and Out Patient Department. A considerable number (19%) live in the south and southwestern sections of the city in which are located Boston's four other cardiac clinics (at Boston City Hospital, Boston Dispensary, Children's Hospital and Peter Bent Brigham Hospital). This situation raises the question of the district plan. Shall cardiac patients be guided to seek advice and treatment in their own section of the city? New York and Philadelphia have answered this question in the affirmative. Further discussion of this subject is taken up under the section, Problems of Cardiac Clinics. The map of Massachusetts, showing residence of patients outside of Boston, indicates that patients attend the Massachusetts General Hospital from all parts of the State—from Fall River, Andover, and so on. Hence, these queries seem logical: Should additional facilities for diagnosis and treatment be stimulated throughout the State? Should a study of such resources be made?

4D. INADEQUACY OF FOLLOW-UP WORK

Having checked the medical histories in relation to (1) the number of cardiacs treated at the hospital, (2) the classification of diagnoses, (3) residence, two other observations were made in regard to the inadequacy of the follow-up work:

1. 350 cardiac patients visited the medical or cardiac clinic but once.
2. 15 cardiac patients were treated in the South Medical (Clinic for Syphilis), Neurological or Surgical Clinics, who did not report to the medical or cardiac clinic.

In briefly reviewing the statistics of new cardiacs ~~diagnosed~~ during 1921 it was found that:

(1) 1082 patients were diagnosed as having heart disease.
(2) 865 patients attended the O. P. D.; yet only
(3) 284 patients, or 33%, attended the cardiac clinic.
(4) 350 patients, or 40%, visited the hospital but once.

These statistics raise the questions: Should the cardiac clinic function as a consultation and research clinic? Is this best for the efficiency of both the special and general clinics? If so, how is the cardiac expert to be assured that adequate diagnosis and treatment will be accorded all other patients in the general clinics—that the "350" shall regularly receive medical supervision?

4E. THE ADULT AND CHILDREN'S CARDIAC CLINICS

Some interesting facts were revealed by the study of the adult and children's cardiac clinics, with special reference to the year 1921. Both clinics are under the medical direction of Dr. Paul D. White (the Children's Cardiac Clinic since September, 1922).

(*A*) *Adult Cardiac Clinic*

1. *Scope*: 253 cardiac patients are at present (to January, 1923) on the active medical follow-up list.

   88 are under supervision of the Social Service Department.

   In terms of visits the clinic shows increased activity:

1920	367 visits	134 follow-up cards sent*
1921	763 visits	172 follow-up cards sent
1922	845 visits	245 follow-up cards sent

In the year 1921: 160 patients attended the clinic, 83 males; 77 females.

Age groups:	12-16	29 patients
	17-20	7 patients
	21-30	27 patients
	31-40	21 patients
	41-50	17 patients
	Over 50	44 patients

2. *Diagnosis*: An analysis of diagnosis of 141 patients, according to the etiological classification, indicates that the rheumatic group, 54%, is by far the largest. This is interesting because it is the type of cardiac disease most common in children and is believed to be the form most to be helped. To wipe out heart disease under the age of 50, is the aim of cardiac experts today. Preventive work with rheumatic and syphilitic heart disease is to be the main method.
3. *Residence*: Forty-six per cent of the 160 patients studied came from localities outside of greater Boston. The patients were widely scattered over the entire State from Springfield and Worcester to Lawrence and Gloucester. Lynn, Chelsea and Malden represented the communities sending the greatest number of patients, excluding Boston.
4. *Follow-Up Work*: An analysis of the length of time that 150 patients were under medical supervision showed that 75, or 50%, returned to the clinic as often as advised by the physician. Of 160 patients who attended the cardiac clinic in 1921, 59 were still reporting regularly in January, 1923; 4 were treated by the Social Service Department. The chart below indicates the length of time patients were under medical supervision in the cardiac clinic.

(*B*) *Children's Cardiac Clinic*: A special cardiac worker has been provided in this clinic since 1916 through the interest of the Committee for Home Care of Children with Heart Disease. In the year 1921, 178 children (65 boys and 113 girls), ranging in age from 2 to 15, made 442 visits to the clinic. Most of the children (152) came from Metropolitan Boston, 88 from Boston proper and only 26 from various communities in Massachusetts.

This clinic accepts children with cardiac and pre-cardiac conditions; 86% of the patients had rheumatic heart disease or rheumatic history. The interest in the preventive side of heart disease is evidenced by an analysis of the diagnoses of the 178 cases—66 (or 37%) were diagnosed as having pre-cardiac or normal conditions; most of them having chorea. As chorea, rheumatism, etc., are often forerunners of heart disease, this is an effort to prevent damage to healthy hearts by preventive medical work, hygienic instructions and by special attention to rest, nourishing food, etc., under the supervision of the cardiac expert.

The children's cardiac clinic is growing rapidly; in 5 months of the year 1922 there were, minus 11 patients*, as many children attending the clinic as in the full year 1921. The marked emphasis on the preventive aspects of rheumatic heart disease, indicated by the statistics of the children's cardiac clinic, even from the beginning of its work six years ago, is an expression of the purpose of the committee, and of the cardiac specialists and social workers, to strive to prevent heart disease in children.

4F. HOME SITUATIONS IN RELATION TO THE FAMILIAL INCIDENCE OF RHEUMATIC HEART DISEASE

(*Résumé of Study Made by Mary Catterall, Smith College of Social Work Under Direction of Social Service Dept., Mass. General Hospital*)

In presenting a brief résumé of Miss Catterall's study, "Home Situations in Relation to the Familial Incidence of Rheumatic Heart Disease," only three phases have been discussed: (1) the idea and plan of the study; (2) the suggestive conclusions drawn from the medical histories and from the social study of the homes visited, with some of the charts illustrative of this data; (3) generalizations drawn from the study as a whole.

The study is based on the premise not yet satisfactorily proved: ". . . . that cardiac disease in the young is of bacterial origin and a clinical expression or complication of 'rheumatic infection' ";* that it may be a communicable disease, a preventable disease, and therefore that it is of utmost importance that the means by which such rheumatic disease is disseminated should be investigated.

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*When the patient fails to return to the clinic on the day designated by the physician, the clinic secretary sends a post card urging the patient to return.

*This statement is somewhat exaggerated, as a number of cardiac patients were seen in the general clinic during the year 1921 and, therefore, not counted in the statistics of the cardiac clinic.

The plan of the study is as follows: The investigation is limited to a study of 100 unselected cases with a diagnosis of rheumatic heart disease or potential rheumatic heart disease, as they appeared in the children's (55 cases) and adults' (45 cases) cardiac clinics at the Massachusetts General Hospital, between Nov. 14, 1922, and May 1, 1923. From these patients or their parents, in the case of all children, the following information was obtained in the clinic for the purpose of determining the familial incidence of rheumatic heart disease: name, present address, date of birth of each member of the family, and whether or not each member has had rheumatic fever, chorea, frequent attacks of sore throat, rheumatic muscle or joint pains or heart disease; if so, at what date they had each attack, and at what address they were living at the time of the infection. They were also questioned as to what other diseases they had had beside the ones previously mentioned, scarlet fever being specially recorded under other contagious diseases. It was proposed to verify as much of the material given as might be possible by examining each member of the family, especially those in which there was a history of a rheumatic infection at any past date. Each sheet giving the incidence of rheumatic infection in each family was graded according to the history present. The terms used in describing the family situation were "positive," "doubtful positive," "negative," and "tonsil trouble only." A person who suffered from acute rheumatic fever, chorea, or cardiac disease is considered to have had a "rheumatic" infection. The family history is considered to be positive when there is at least one other member of the family besides the patient who has had a rheumatic infection and who is found, upon being examined in the clinic, to have definite heart damage resulting from the infection; or when at least one member of the family besides the patient has died from a heart condition which is proven to be of rheumatic origin. The family history is termed "doubtful positive" when there is a history of rheumatic infection in at least one member of the family besides the patient; but this information has not been verified by examination. A negative history speaks for itself, though it was thought that some few of the negative family histories might fall into the positive group if all of the members of the families might have been examined for rheumatic heart disease. The histories falling into the "tonsil trouble" group were those in which the family history was negative except for constantly recurring sore throats in one or more members of the family besides the original patient.

With this information regarding the familial incidence of the rheumatic infections at hand, twenty-five home visits were made to study closely the home situations and to determine any factors which might have influenced the spread of the disease.

The homes chosen for careful study were selected primarily on the basis of the family histories regarding rheumatic infection as revealed by the record taken in the clinic, taking in largely those homes in which the familial incidence for rheumatic infections was greatest, and those in which the family history was entirely negative. Certain other factors entered into the choice of homes visited, however, such as neighborhoods or nationalities, as it was thought best to investigate various neighborhoods as well as various racial groups in order to get as much light as possible on the home situation surrounding the patient with rheumatic heart disease. It was found most advisable to confine the home visits to the families of patients in the Children's Cardiac Clinic, as the patients in the Adults' Cardiac Clinic were so often living away from home, and their families were scattered, so that little could be determined about their previous home situation.

In order to condense this special investigation sufficiently to be included in the general study, the details have been omitted and the following conclusions deduced:

(*A*) *Medical Investigation of* 100 *families.*

1. There is a "Family Incidence" of rheumatic infection as there are two or more members having rheumatic infections in 39 of the families studied. For 100 patients with rheumatic infections, 48 exposed persons were found having a rheumatic infection.
2. Of the total 39 families in which there were two or more members with rheumatic infections, 26 families, or 66% of the families with positive histories, had the infection appearing first in either the mother or father or both (infection not necessarily contracted by the patient during adult life), later the children contracting the disease.
3. Chorea is more frequently diagnosed as a preliminary infection today than it was 10 to 15 years ago.
4. Removal of the tonsils is usually done in patients with a rheumatic infection; 79% of the patients studied have had marked tonsil trouble.

(*B*) *Social Investigation of* 25 *families*

1. Among the 25 families studied, families living in two-family houses grade higher for home situation surrounding the patient than those living in tenement houses.
2. There is no correlation in these families

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*St. Lawrence, Wm.: The Family Association of Cardiac Disease, Acute Rheumatic Fever and Chorea. A Study of a Hundred Families. Jour. Amer. Med. Assn., Vol. 79, No. 25, pp. 2051-2055, Dec. 16, 1922.

between the grade for the total home situation surrounding the patient and the spread of rheumatic infection in the family.

3. Good home conditions and good personal hygiene have little relation to the spread of the rheumatic infection in the families studied.
4. Grades on home conditions and personal hygiene tend to vary together among the various families studied, and have little relation to the spread of the rheumatic infection.
5. 50% of the cases of rheumatic infection were found in the homes where discipline graded "poor"—however, the mother or father having had a rheumatic infection had little effect on the discipline in the home.
6. The home situations were *poor* where the mother works for the support of the family, but the rheumatic incidence is not high in turn.
7. The families of Canadian origin had the largest number of cases per family, the American-born families grading next.
8. There are 3% more members with rheumatic infections in relation to the total number of people among the families living on the border-line or below the minimum living wage level ($1200 a year for family with five children) than among the families living above the minimum living wage level.

This study of the home situation surrounding the patient with a rheumatic infection in relation to the family incidence of the disease covers only a small number of families studied, and therefore any conclusions reached can be taken only as suggestive possibilities. Perhaps inherited susceptibility as much as dissemination by close contact between infected and non-infected persons is a fundamental cause underlying the frequency in families of the rheumatic infections.

The significance of good personal and home hygiene and good discipline is not minimized in the least, however, in the homes, but the reason for attacking it need not merely be considered in the light of protecting the uninfected members of the patient's family from contracting the disease from the patient, but also with a view to protecting the patient with the rheumatic infection and of helping him and the other members of the family to keep their physical condition as good as possible so that they may resist the disease if the inherited susceptibility is there, or resist further recurrence if the disease itself is present and, at the same time, that they may be able to resist infections of other varieties.

The doctor in the clinic sees the patient with a rheumatic infection and prescribes treatment for him which will enable him to be of the most possible value to himself and to the community in the future.

The doctor may recommend for the patient:

1. Weeks of quiet in bed (preferably alone) until the acute symptoms of the disease have subsided.
2. A nourishing, well-balanced, well-rounded diet, with perhaps mid-morning and mid-afternoon lunches.
3. Plenty of fresh air and sunshine.
4. Ten to twelve hours of undisturbed sleep at night after the child is well enough to be active during the daytime—with morning and afternoon naps besides.
5. Exercise when the acute symptoms have subsided, taking exercise normally as other children do whenever the child's condition will allow it.

The doctor may recommend to the mother:

1. That she must have the child's tonsils removed as soon as the acute symptoms subside, an operation costing in the clinic about $8.
2. That the child's teeth must be examined, perhaps, and cared for.
3. That she (the mother) must be on the watch for early symptoms of a recurring infection and must put the child to bed at once or bring him in to the hospital to be seen by the doctor when these symptoms appear.
4. Lastly that she must be responsible for seeing that the instructions to the patient are carried out.

These recommendations are taken daily by mothers like the 25 studied here, into homes similar to the 25 studied here. Consider for a moment an analysis of the poorest home visited in the course of this study. The family is Russian Jewish, having 10 members living on $18 a week and paying $15 a month for house rent. The father was a cobbler but deserts frequently, and at present has deserted his family. The family live on the second floor of a dark, dirty, damp tenement, in a congested, unsanitary neighborhood. The children have no yard or porch on which to play. They occupy four rooms that are poorly lighted and poorly ventilated because of a large brick building close to their rooms on the side where the windows are. The children sleep on cots in the kitchen, four sleeping on a cot in this instance, and seven in a room. The patient, age 11, gets insufficient exercise, has a poor appetite, eats at irregular hours, and has an insufficient and poorly balanced diet. She goes to bed at nine o'clock. The patient's mother is unintelligent, plans poorly and the discipline in the home is poor. The patient has chorea and rheumatic heart disease and has had her tonsils removed; she has had no other infections, according to her mother's report. The family history in this home is negative for rheumatic infections, two members having had tonsil trouble only.

It is evident that serious problems must be faced in the home if the patient's condition is to be improved. We find that the months of quiet in bed must be brought about in a home where the patient has been sleeping in a bed with three other children and in the room with seven children; the well-rounded nourishing diet and mid-morning and afternoon meals are to be furnished out of $18 a week on which nine to ten members are living. Fresh air and sunshine must be found for the child living in a dark, dirty tenement with no porch or yard space and windows that open on to a large brick building; the undisturbed ten to twelve hours of sleep must be had in a room where from three to six other people are going to bed at varying hours during the night, and the child must be encouraged to have normal outdoor exercise. This mother, whose husband has deserted and who is herself unintelligent and a poor planner, is trying to live on $18 a week, barely enough for necessities in health, with no margin for the costs of sickness. She must have intelligence enough to be observant and to detect symptoms of a recurring infection, when she has only a vague idea herself as to what these symptoms are; and she must, besides taking care of seven other children, see that the patient is persuaded to carry out the doctor's orders, the patient perhaps being unduly cross and irritable because of the disease. These are some of the adjustments that the social worker must help to bring about through constructive planning with the family. Besides helping to straighten out these matters, the social worker must see the causes underlying the whole situation, or at least must recognize that there are causes whatever they are—why has the husband deserted, why is the home situation as it is, what are the underlying causes that make the various people involved in the situation react in the way in which they do to the every-day problems of life? Are there any resources in the community that can get at the bottom of the situation? If there are, how can they be made available to the patient?

Several important general needs that were brought out by this study of the patient and the home situation surrounding the patient with a rheumatic infection are listed below in conclusion.

1. The need for a social worker in all cases of rheumatic infections as enlarged on above.
2. The need of even more educational propaganda about the nature of rheumatic infections.
   a. To reach, especially, uneducated mothers. (This need was particularly brought out in this study by the fact that 2/3 of the mothers interviewed said that their children complained of pains in their joints for weeks before anything was done about it, but as the mothers could not see anything wrong with the joints they forced them to stop complaining and go on with their work. A large number of the mothers interviewed spoke of the symptoms of the children as nothing but "growing pains," and remarked that they had scolded their children severely for not being able to control their hands in writing and for breaking things by dropping them, while the children were in reality showing symptoms of chorea.)
   b. To reach school teachers and principals. (This need was brought out by the fact that two of the mothers said that their children were no longer taking morning and afternoon rest periods, as advised by the doctor, because the teacher had complained and made it disagreeable for the children at school by making it impossible for them to keep up with their work unless they followed the routine schedule for the school, as they said "that it made too much trouble for them, granting special favors to these children." The coöperation on the whole among the school teachers, however, was good.)
3. The need for enough hospital beds to take care of the potential cardiac cases in the vicinity, where the situation cannot be handled satisfactorily for the patient, his family or for society, in the home. (This need was brought out above in revealing home conditions as they existed in some of the poorest homes visited.)
4. The need for the social workers to continue the work being done by the doctors, in encouraging the families and teachers of the patients with heart disease to treat them as nearly like other children as is advised by the doctor and in that way to help the patient with rheumatic heart disease to avoid becoming unduly introspective concerning his condition and to help him to avoid developing feelings of inferiority, thus adding to his handicap.
5. The need of the patient, handicapped by his heart condition, of early vocational guidance so that he may have a suitable wage-earning occupation in adult life.
6. The need of thorough annual physical examinations for school children in order to detect potential rheumatic heart cases as early as possible.

With the doctors, nurses, social workers, school teachers and other organized groups studying the problem of rheumatic heart disease from various angles, the future is probably brighter today for the child with rheumatic heart disease than it has been in the past.

(To be continued)

PERONEAL SPASMS

OPERATIVE AND NON-OPERATIVE TREATMENT OF PERONEAL SPASM OF FOOT

BY LOUIS A. O. GODDU, PH. G., M. D., BOSTON, MASS.

It is with some hesitancy that the writer undertakes to discuss the above condition. The following article is a frank statement and conclusion of the writer's observations during the past several years. In passing it is rather interesting to note that although this condition is fairly common, peroneal spasm is conspicuous by its absence from medical literature. The only reference that the writer has found was an article by Sir Robert Jones, written in 1905, which could not be obtained, and allusion to the subject in the new textbook by Jones & Lovett.

The writer became interested in this subject, because many cases which required more than routine treatment presented themselves. Routine strapping does not cure many of these conditions. Fitting an arch support is not even palliative, and to adjust a Whitman plate in these cases is often more painful than no plate at all. It was from observation of these poor results and discouraged patients, that the writer was prompted to decide upon some definite mode of treating this Orthopedic condition.

His deductions have been made by following up the different cases as they presented themselves for treatment without preference.

The question might be asked—What is meant by peroneal spasm? Is it an entity or a symptom? Is it primary or secondary to some other Orthopedic condition? The writer wishes to make it plain what he has in mind when he employs this term. A patient presents himself and states that his foot hurts. Examination shows a foot that can dorsi-flex and plantar flex, but immediately when attempt is made to supinate or internally rotate, it is found impossible to do so, excepting with a great deal of pain to the patient. Examination shows that the two peroneal tendons along the lower portion of the fibula stand out very prominently, and if the finger is pressed on these tendons, one may readily appreciate how tight and contracted they seem. This in the writer's opinion is what may be called peroneal spasm.

We might group the cases as follows: First, those that may be held in spasm by an acute sprain. Second, those that follow arthritic conditions. Third, those in which there may be marked overgrowth of bone from one or more of the tarsal bones, the impinging of which causes pain, with the foot in supination, therefore the foot is held over in a position of comfort, which means pronation. Then again there are cases without any demonstrable factor in their history, with negative objective signs, excepting for spasm, these cases might be called idiopathic.

It might be worth while for us to visualize what happens when a normal foot is at rest in a standing position. It has been described by various authors, and it seems that when we stand the astragalus rotates downward and inward, and thus, to a degree, the foot becomes more or less locked by nature in a position of rest. The writer feels that perhaps consciously or unconsciously when there is some etiological factor that produces pain by motion of the midtarsal region in supination, the foot is then thrown into this position and held so by contraction of the peroneal tendons, and that when a patient walks with the foot locked in this manner he quite naturally superimposes strain upon existing conditions, and that when the majority of these cases present themselves for treatment, we may perhaps reasonably assume that we have an irritating factor in the tarsal region, and a more or less involuntary contraction of the peroneal tendons. Definite strain foot conditions follow this just as we know strain of the foot may well cause symptoms in the knee, hip, etc.

Sprain—In cases of sprain it would seem that the history of the case would soon clear up the situation as to etiology. Sprains can be readily treated. If one has the history of sprain, the foot showing objective signs of recent injury, and it should be noted that although the peroneal tendons may be in a certain amount of spasm, by careful manipulation the foot can be brought over much more easily than if the injury were not recent. If these recent cases resist manual correction, one should infer that we probably have at hand a more severe injury, such as a possible fracture of the extreme tip of the fibula. If such is the case then one should treat accordingly.

Arthritis—It seems that in this type of case that we have more to say. The theory that arthritis is the primary cause of the position of the foot, and that the peroneal condition is secondary, assuming that we have arthritis or so called rheumatism present, we have a definite irritating process in all the tarsal joints. These patients naturally persist in getting about, and in order to do so with the least amount of pain, they throw their foot in a position of Valgus, because in this way they get less motion in the tarsal region. If this position is kept up long enough a permanent secondary contraction of the peroneal tendons results, and thus we have a more or less rigid foot in a vicious position. Relative to the treatment of these arthritic cases, it is not necessary that the cases be divided relative to the different types of arthritis. For practical purposes they may be considered under one head.

We know that arthritis is rather a slow, chronic condition, and that if we have a case of disabled foot from the above condition, that the first object is to maintain the foot in as good position as possible, likewise giving comfort to the patient. If the case is treated early it will be agreed that we have a less difficult problem in the matter of reposition than if the case had gone on for a long period. The majority of these cases if they are very active will ultimately show loss of motion in the midtarsal region, as the result of a greater or less tieing up of the joints by the arthritis, therefore an early peroneal spasm as the result of arthritis can only be treated in the writer's opinion by observation, correction and sometimes a certain amount of immobilization. The subsequent treatment to be based on the results from search for the etiological factor, following up the condition, and treating the symptoms as they present themselves, the object being to keep the foot in as good position as possible. In the older cases one will find varying degrees of stiffness and deformity present, permanent or real contraction of the peroneals, in other words a foot that is really tied up. In these cases the writer believes that a resection of the peroneals with a forcible manipulation of the foot, and a retentive plaster of paris cast, is the best means of getting a more useful and painless foot, which ultimately may tie up in better position.

Exostosis—Very often a foot is held in marked position of pronation, and no real reason for it can be made out, excepting by X-ray. X-ray sometimes show a definite exostosis, as in one case where the exostosis was at least ½″ long, and as wide, and impinging on the internal malleolus. This overgrowth represented a mechanical obstruction to the reposition of the foot, and it was definitely shown that a removal of this exostosis, with lengthening of the peroneal tendons, obtained a reposition of the foot without any difficulty, and recent examination with the patient, after a period of several years demonstrated the fact that the patient had a good permanently cured foot. Therefore it is really important in all cases before any treatment is instituted that X-ray should be taken of every case to rule out acute pathology, exostosis and overgrowth of any kind.

Idiopathic cases, the writer uses this term for the want of a better one. It seems that these cases occur mostly in the younger patients, rather more frequently at adolescence. The writer does not know whether that has any bearing on the subject, or whether because these younger people injure their feet, and pay no attention to it. In practically all of these cases no history that would bring any light on the etiology can be obtained. However this type of case seems to offer the best results in treatment. In a great many of the cases a manipulation without ether, and a series of spiral strappings with the foot in good position, seem to give the best result, with possibly a Whitman plate.

Conclusions—A discussion of the treatment of course necessitates some degree of knowledge of the etiological factors, at the same time treatment of these cases cannot always be based on knowledge of the causative factor, and one must be satisfied with trying to relieve as far as possible symptoms. One will find that in spite of all investigation it is very often impossible to find a definite etiological factor, however, meanwhile the patient seeks relief and the only recourse that the Orthopedic Surgeon has is to carefully sum up the objective plus the subjective symptoms and the most probable causing factor, and make effort to give the patient definite relief. This relief is needed for the simple reason that as these cases go on to a more or less permanent vicious position, the knee strains, hip pains and sacro-iliac conditions may readily follow.

One must as far as possible ascertain whether the peroneal contraction is primary or secondary, whether it is a permanent contraction or spasmodic contraction, whether it is of short duration or long duration, whether the foot at this time is held in pronation because of secondary contraction of the peroneals and the etiological factor, in order that we may know whether we should do a peroneal resection or a lengthening. Having these things in mind it would seem that we could go ahead and offer a fair degree of rational treatment for the alleviation of the disability.

The writer feels that the majority of these cases are of a secondary nature, and that to a greater or less degree are from some condition in the midtarsal region. One cannot always tell at the time just what to do, a great many of these cases when anaesthetized seem quite different than when not under ether. Much of the judgment as to whether we shall do a resection, a simple manipulation, a tendon lengthening, or a Hoke resection can only be judged at the time of operation.

In the simple idiopathic cases it is noticed that with the foot strongly plantar flexed, it can be brought around much easier. The writer assumes that it is possible that the distance between the attachment and the insertion of the peroneal tendons is made shorter, as is true of a plantar flexed foot, and therefore the tendon is less contracted, and the foot more easily brought over into supination. These cases are more easily treated. In young patients they can be corrected, particularly if they are not of long duration, by simple manipulation without ether.

The writer agrees with a statement, that these true cases of peroneal spasm occur after puberty and during early adolescence, and are by no means uncommon, also that they are not particularly associated with a neurotic temperament, furthermore they state that mechanical measures are of little avail, with which opinion the writer concurs, but he must disagree that all patients should have ¾″ of the peroneal tendons removed, because many cases are treated without open operation with good results.

The following is a brief outline of some of the cases treated by the writer, following principles laid down above.

J. F. Age 42, left foot pronated, considerable exostosis, infectious arthritis. Foot is stiff, attempts at manipulation resisted. Both peroneals very prominent and tight. Ether manipulation, plaster of paris cast three weeks. Whitman plates. Condition improved.

C. G. Age 9. Left foot. No etiology obtainable. Attempts to bring foot in good position are resisted by the patient on account of pain. Peroneal tendons stand out prominently by attempts to bring the foot in supination. Foot strapped three times at intervals of a week. Whitman plates and Thomas heels. Result excellent.

H. M. Age 18. Patient stands with foot pronated, has definite enlargement in region of scaphoid. Attempts at reposition give pain in this region; likewise the peroneals stand out prominently. X-rays showed old fracture of scaphoid. Open operation done in this region for correction of deformity; foot brought in good position, held in plaster. Result good.

J. F. Age 20. Both feet. Etiology G. C. infection. Arthritis two years duration. X-rays show tarsal region involved. Foot more or less stiff, all attempts at lateral motion resisted. Recommended a resection of the peroneals. Foot manipulated in good position. Plaster of paris cast three weeks. Whitman plates. Result excellent, as to position.

H. B. Age 12. Right ankle, five months duration. Unknown etiology. Patient stands with right foot in marked pronation, attempts at inversion resisted, patient cries out with pain. Peroneals very prominent. Patient given ether manipulation, plaster of paris cast. Whitman plates. Result good.

A. H. Age 24. Examination shows enlargement in front of internal malleolus, in region of astragalus. X-rays show large exostosis at upper end of astragalus, all attempts at correction are resisted. Condition suggests secondary contraction of peroneals on account of the overgrowth. Overgrowth removed, peroneals lengthened. Plaster of paris cast five weeks. Whitman plates. Result excellent.

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RABIES: A COMMUNITY PROBLEM*

BY GEORGE H. BIGELOW, M. D., BOSTON, AND WOLFERT G. WEBBER, M. D., BOSTON

THE number of reported rabid animals in the state has increased 1,000% in eight years, making the disease one of considerable public health importance. As rabies is a communicable disease spread through contact with rabid animals, control is effected through efforts directed at diseased and susceptible animals. The animal most commonly affected in this community is the dog, though during the last eighteen years the Division of Animal Industry of the State Department of Conservation reports rabies in cattle, cats, horses, swine, goats, sheep and a drake. The following table shows the number of cases, both on clinical and laboratory evidence, as reported by the Division of Animal Industry, and the number of positive heads examined in the laboratory of the State Department of Public Health during the last twelve years.

YEARLY INCIDENCE OF RABIES IN ANIMALS

Year	Number of cases in animals	Positive heads examined
1912	100	30
1913	224	59
1914	265	79
1915	226	86
1916	51	13
1917	62	27
1918	75	54
1919	121	81
1920	171	115
1921	286	164
1922	464	242
1923	465	274

There is no adequate explanation for the marked drop from 1915 to 1916, though during this period quarantine regulations among exposed and bitten dogs were standardized.

There is a popular superstition that rabies is a disease of hot weather and, therefore, a false sense of security from this disease with the advent of cold weather and danger of relaxing the measures necessary for its control. The following figures from the clinical cases and positive laboratory findings in 1923 show no striking seasonal variation.

MONTHLY INCIDENCE OF RABIES IN ANIMALS IN 1923

Month	Number of cases in animals	Positive heads examined
January	49	20
February	44	31
March	47	26
April	37	23
May	42	31
June	40	22
July	50	36

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*From the Massachusetts Department of Public Health.

1924

August	30	15
September	31	17
October	34	15
November	29	17
December	35	21

Up to within the last few years there was a considerable amount of rabies in Connecticut. Some five years ago the disease appeared just over the border in Massachusetts. It spread through Taunton and New Bedford to Boston. The spread is now towards the northern part of the state. This is a splendid example of the oft-repeated statement that it is the stray dog that is responsible for the spread of rabies. The appended spot maps show the location of the rabid animals as reported to the State Department of Public Health in 1923, and the first *five* months of 1924.

Dr. G. E. Corwin, Deputy Commissioner on Domestic Animals in Connecticut, reports the travels of a single mad dog as follows:

Starting point	Miles traveled	Number of known dogs bitten
Suffield	15	27
East Windsor	7	12
South Windsor	10	7
Vernon	30	7
Somers	40	12
Manchester	18	9
Old Lynn	12	4
Norwich	15	15
Total	147 miles	93 dogs

He adds that "the number of dogs bitten is the exact number known. However, it can readily be understood that an addition to these known bitten dogs may have been probable, and this is one of the reasons why the disease is hard to control."

Treatment. The treatment of rabies in man is anticipatory and preventive rather than curative. Once the disease has developed one can do nothing effective. A person bitten by a rabid animal or by an animal reasonably suspected of being rabid should be given treatment. In this connection it should be noted that cases of rabies have been reported in persons not known to have been bitten though they have come in contact with the saliva of rabid animals. Dr. L. H. Howard and Dr. H. W. Peirce of the Division of Animal Industry cite an instance of rabies in a cow which was not bitten so far as is known but which was stalled next to a rabid animal with every possibility of saliva contamination. In these instances undoubtedly the virus entered through minute abrasions.

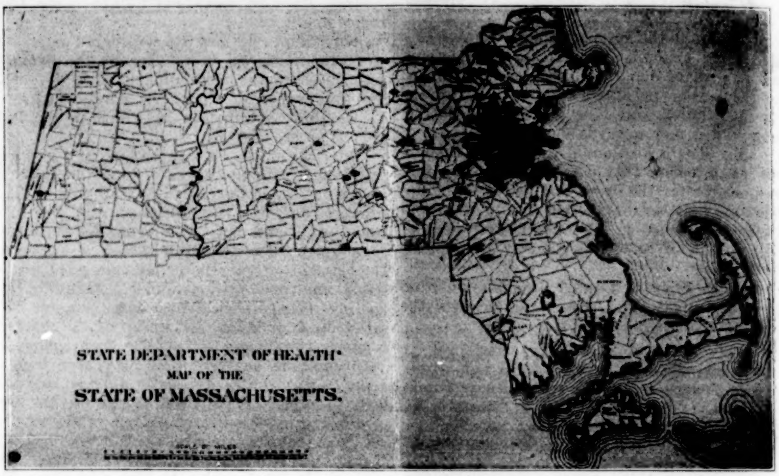
The preventive treatment consists of the classical method devised by Pasteur and named after him. Regular injections of segments of the cord of rabid rabbits in different stages of the disease are given. The time element between the infection and institution of treatment is important, and there should be no delay. When started early the mortality in treated cases is practically nil. The very effectiveness of the treatment actually increases the difficulty of control, since an occasional human death from rabies might keep the community aroused to its responsibility. It may be considered a preventive axiom that the more effective the prophylactic measure the more difficult it is to retain its public support. This is strikingly illustrated by smallpox vaccination in which public lethargy is on the increase.

Material for the Pasteur treatment was formerly issued without charge by the United States Hygienic Laboratory at Washington. This practice has been discontinued and the local boards of health must now order for their own community. The product of the New York City Department of Health is recommended as reliable and promptly available. Many of the leading pharmaceutical firms also put out very satisfactory products. The cost of the material is about twenty-five dollars for each course.

Inoculations against rabies have been used as a preventive of this disease in animals, particularly in Japan. In this country its use has been generally limited to valuable dogs where owners are particularly solicitous of their welfare. However, in Connecticut they report 1600 dogs voluntarily vaccinated. In this connection Dr. Corwin reports that

> "Since the vaccination of dogs was started in Connecticut six vaccinated dogs have been bitten by known rabid dogs and none have developed rabies. An interesting incident occurred when a known rabid dog bit two unvaccinated dogs and one vaccinated dog. The two unvaccinated dogs developed rabies and the vaccinated dog did not and is still living after the lapse of nearly two years. We are absolutely sure in Connecticut that the very best means to eradicate and control rabies is by the anti-rabies vaccination method.
>
> "It has been thought that at some time it might be considered advisable to make the vaccination of dogs compulsory and perhaps at some future time the question of such a necessity might be brought up for action. However, we have thought that perhaps it might be better at this time, and as an educational affair, to give the owners choice of holding animals in strict quarantine (as the quarantine might call for) or in having their dogs vaccinated, which would give them the same liberties as dogs have in unquarantined areas. We have tried to bring these facts before the laity and to educate them relative to the results of anti-rabies vaccination."

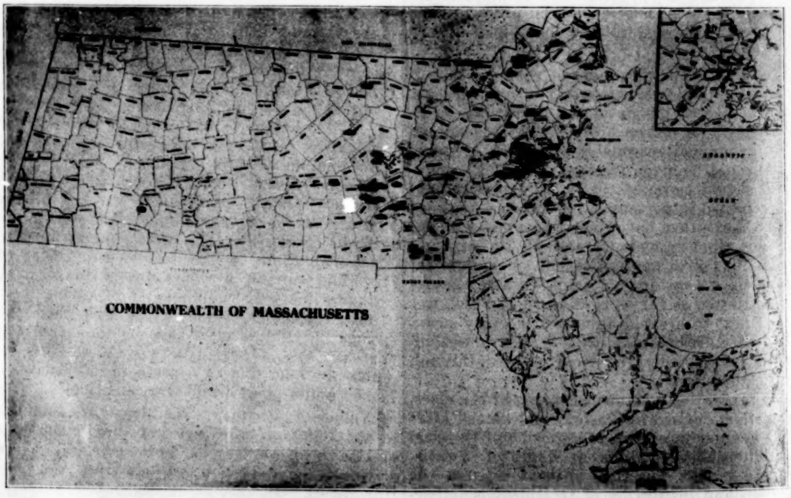
Wallace T. Eakins, in the May, 1924, number of the *Public Health News* of the Department of Health of the State of New Jersey, describes at length the work done in New Jersey to control rabies. In discussing legislative enforcement of the immunization of dogs against rabies he says that "in at least one municipality in New Jersey, i. e., Englewood, an ordinance embodying such requirements has been adopted and enforced for some months. In another city, Orange, such an ordinance has just been adopted."



Location of rabid dogs reported in 1923.

Eichorn and Lyon (J. Am. Vet. Med. Ass., Ap. 1922) report that they they immunized six dogs. These as well as three controls were given "street virus." The controls died in 15, 16 and 17 days and Negri bodies were found. The immunized animals did not develop the disease.

Control. The law provides that all dogs shall be licensed by the city or town in which the owner resides. This is all the legal armamentarium that any community needs for the com-



Location of rabid dogs reported during the first five months of 1924.

plete eradication of rabies. The disease is spread by the stray dog. The stray dog is the unlicensed dog. Each community should be active in disposing of unlicensed dogs. New York City has controlled rabies in this way. But the dog cart leaves a line of wailing children in its wake, and the community is very susceptible to the wail of children. But are not wailing children preferable to dog-bitten children? Any citizen may have as many dogs as he desires provided he licenses them. This is certainly reasonable. Communities should be shaken out of their sentimental attachment for the stray dog and recognize him for what he is, an enemy.

When an outbreak of rabies occurs in a community all dogs except those immunized against rabies should be retained at home, or taken out only on leash for a period of ninety days. This gives time for any animals that may have been infected to develop symptoms without in the meantime infecting others. This is called "zone quarantine" and has been effective along with strict licensing in practically eliminating rabies from Connecticut. Muzzling is not generally approved since the muzzles almost never fit, are often not in place, and put the muzzled licensed dog at a disadvantage when attacked by the rabid dog, which is usually the stray and therefore unmuzzled. It has been suggested here as well as in Connecticut and New Jersey that the inoculation of all dogs against rabies be required before a license is issued. This would probably be effective but the added expense of some three to five dollars to cover the cost of material and administration would work a hardship on many and it is not necessary for control.

To repeat, then, the Division of Animal Industry of the State Department of Conservation has long claimed that the rabies problem would be solved by the elimination of the stray, i. e., unlicensed, dog and strict zone quarantining of dogs when a case of rabies appears. These will be enforced just so far as they are supported by public opinion. Rabies then will remain in a community as long as and no longer than a community wills it, and it is strictly a community responsibility.

MEDICAL PROGRESS

Progress in Surgery

BY JOHN S. HODGSON, M. D., BOSTON

The surgical treatment of severe and advanced pulmonary tuberculosis by artificial pneumothorax and by extrapleural thoracoplasty, with or without phrenicotomy, has considerably augmented the percentage of cases improved or cured.

Therapeutic artificial pneumothorax was introduced by Forlanini in 1882. Murphy first employed it in this country in 1898. The publication by Brauer and Spengler in 1906 first seriously drew attention to the value of this procedure.

Extrapleural thoracoplasty was suggested by Jehn (Beitr. klin. Chir. 1914). Jehn found that total rib resection produced collapse of the chest wall and the same anatomic effect on the lung as total artificial pneumothorax.

Artificial pneumothorax consists in an attempt to collapse a lung affected with tuberculosis, by injecting nitrogen or air into the pleural cavity. A weakly negative or positive pressure is obtained, as recorded manometrically. The method is chiefly applicable in unilateral pulmonary tuberculosis, without adhesions. The results have been steadily improved by a more careful selection of cases, and the former dangers of the operation (pleural reflex and gas embolism) have been largely eliminated. Sachs (J. A. M. A. 1915) found improvement in 50% of 1145 cases, these results closely approximating the European statistics.

Extrapleural thoracoplasty consists in an attempt to secure collapse of the chest wall and compression of the lung. It is applicable in cases refractory or unsuitable to artificial pneumothorax, where compression is not obtained in 25% of cases. Various methods have been employed.

The earliest and most extensive operation is that devised by Friedrich and Brauer of Marburg. It consists in the subperiosteal resection of the first to the eleventh ribs inclusive after reflecting a large musculocutaneous flap. The operation is carried posteriorly parallel with the spine along the transverse processes, subscapularly, and anteriorly to the costo-sternal junction. Enough of the ribs is removed to permit the scapula to sink in without obstruction. Brauer has since modified the operation, leaving a portion of the ribs laterally and anteriorly, so as to avoid "fluttering." He also uses an anterior incision in addition, to help free the ribs in front. He leaves the periosteum and intercostal muscles, and emphasizes the need of preserving intact the intercostal nerves from the seventh downward, so as to avoid paralysis of the abdominal muscles and embarrassment of diaphragmatic respiration. Friedrich recommends his procedure only in unilateral tuberculosis or in bilateral tuberculosis with the disease quiescent on one side. Sauerbruch and Henschen in the Zurich clinic report 66% improvement, and a 5% mortality only, in cases treated by the Friedrich method.

Wilms has advocated an extrapleural rib mobilization. This method consists in the resection of short pieces (2-3 cm.) of ribs at the costovertebral angle, combined with resections of short fragments of the costal cartilages. The portions of the ribs intervening between these points are not removed. The chest wall collapses and is held by a compression bandage. This procedure may be confined to the apical region or applied to the entire thoracic wall. It is less formidable, but produces less lung collapse, than Friedrich's method. The results are said to be good and the mortality practically nil.

Tuffier's operation consists in stripping the pleura from the chest wall over the site of the disease, and producing compression by inserting fat between the pleura and the chest wall. The procedure is chiefly for local compression (apex or cavity) and is not applicable to an entire lung. Healing is said to be satisfactory. The substitution of paraffin for fat as suggested by Baer is prone to result in infection or penetration of a cavity or the lung. Used in conjunction with the Friedrich or Wilms operation, Tuffier's is sometimes a valuable measure.

Sauerbruch's, Paulsen's, and other operations are largely modifications of Friedrich's method.

Phrenicotomy, first proposed by Stuertz, consists in division of the phrenic nerve in the neck, and is recommended particularly in chronic lower lobe phthisis. The effects are paralysis of the diaphragm, its elevation to the position assumed in maximum expiration, diminution in the size of the lower thoracic cavity, and limitation of inspiratory activity. The lower lobe of the lung is partly put at rest and partly compressed. Phrenicotomy is inadequate alone, but is useful as an adjunct to larger procedures as a treatment for unilateral pulmonary tuberculosis. Sauerbruch finds its chief usefulness in circumscribed upper lobe tuberculosis, where it may be combined with Friedrich's thoracoplasty.

Extirpation of the phrenic nerve is by some advised in preference to simple phrenicotomy. Edith Lande (Ztschr. f. Tuberk; Mar. '24) emphasizes the need of extirpating several centimeters of nerve, enough to include the motor supply from the accessory tracts, asserting that simple division of the nerve often fails. The author cites as symptoms of diaphragmatic paralysis the high position of the diaphragm with standstill or slight movement in the same direction, or high position with paradoxic movement and positive Bittorf's test. If normal individuals are requested to inspire deeply with mouth and nose closed there is a paradoxic sucking upward of both halves of the diaphragm due to a strong negative pressure resulting from dilatation of the thorax with defective air intake. The diaphragm behaves likewise in unilateral artificial pneumothorax. If, however, one half of the diaphragm is paralysed in this experiment, this half moves up very high, and the normal half moves downward, the paralysed diaphragm compensating the decreased pressure for both sides. The author then enumerates the indications for phrenic extirpation, viz:—

(1) As an independent operation in unilateral tuberculosis, chiefly of the lower lobe.
(2) As a substitute for pneumothorax in unilateral pulmonary tuberculosis if adhesions prevent pneumothorax.
(3) As a routine introductory operation for every pneumothorax treatment, because in addition to placing the lung at rest it is said to slow the absorption of nitrogen and to prevent the frequency of exudate formation in pneumothorax.
(4) As a supporting measure in partial or total pneumothorax.
(5) As a substitute for thoracoplasty in severe tuberculosis of one side, if the other side is too much diseased to permit of thoracoplasty.
(6) As a preliminary and supporting operation in thoracoplasty.
(7) As a functional test in intended thoracoplasty and in cases where the other side shows mild signs of disease. The indication for thoracoplasty is furnished when the less diseased side bears the exclusion of the other by phrenic nerve extirpation without reaction.

Shaw (Practitioner, Feb. '24) states as indications for artificial pneumothorax the presence of (1) repeated and voluminous hemorrhage, (2) a unilateral and rapidly progressive process, (3) cases with periodic lapses into activity, (4) unilateral cases resisting other forms of treatment, (5) chronic progressive cases with cavitation, (6) much fever and septicemia, (7) serous effusion in young adults, to displace, (8) complete collapse from spontaneous pneumothorax and later expansion. The collapsed lung should not be allowed to reëxpand. Though the patient may be rendered free from the symptoms of tuberculosis, he should not be told that the disease has been eradicated. It cannot be proved that life is prolonged, but it is made more endurable. Physicians should advocate the induction of artificial pneumothorax at once in the affected lung.

Burrell (Brit. M. J., Mar. '24) advises frequent small refills in starting pneumothorax treatment, until the lung is well collapsed. He aims to secure good collapse after two weeks and 5-6 refills. The length of time optimum collapse will last without refill is best gauged by X-Ray examination. It is not necessary to compress the lung fully, as a very satisfactory collapse can be obtained with the intrapleural pressure still negative, and harm is often done by giving too large a refill.

Farrell and Fleck (Am. Rev. Tuberc; Jan. '24) report 109 cases treated with artificial pneumothorax, with 45 improved and 42 unimproved. Body weight was the principal criterion in determining the end result. The percentage of improvement at discharge varied inversely as the preadmission loss of weight. The high death rate during the first 60 days suggests that the treatment may shorten life.

Hudson and Mamie (Brit. J. Tuberc., July, '23) mention the signs and symptoms and some of the complications after insufflation. The patients breathe better. The fever may show an immediate rise, but descends slowly. The subsequent lowering is rapid unless a part of the lung is adherent, when there may be a temporary rise following refills. Expectoration at first increases, then distinctly diminishes. Tubercle bacilli diminish and disappear.

Pleural effusions occur in at least 50% of cases. Purulent effusions may be due to tubercle bacilli alone, to mixed infection or septic infection. Gas embolism should be avoided by careful insufflation; its symptoms are epileptiform seizures, hemiplegia, or sudden death.

It is generally better not to begin the induction at an altitude, as greater strain is put upon the heart and other lung. The gas expands as the patient ascends, hence before travelling to a mountain resort he should be left with a low pressure. The spending of a few days at an intermediate station is recommended. Vice versa, when about to return, the patient should be given a tighter filling than usual. It has been estimated that 2000 c.c. of air at sea level increase roughly 80 cc. per 1000 feet of elevation, while 200 c.c. at 5000 feet decrease by 50 c.c. per 1000 feet of descent.

Maendl (Beitr. Z. Klin. I. Tuberlr., Feb. '24) describes a test for determining whether the lung has been punctured in cases where the manometric oscillations are uncertain; by placing a drop of ether in the afferent tube the patient complains of a peculiar taste in the mouth if the lung has been punctured.

The patient lies on the sound side, and nitrogen is used. The danger of perforation pneumothorax is especially great when a caseous infiltrated lung in which the process has extended to the periphery is robbed of compression by the rapid absorption of the gas, so that a severe attack of coughing may rupture the lung. The treatment should not be given in patients over 50 years of age. Distortion of the heart and great vessels is remarkably well borne if they do not take place too rapidly, and in a young strong healthy heart. Treatment has to be given with great care in cases with heart lesions. Overloading of the heart seems to be greater with right than with left pneumothorax. Overdistension of the mediastinum is one of the most frequent complications of pneumothorax. An especially dangerous complication of artificial pneumothorax is rupture of a cavity into a pneumothorax previously existing, as suppuration generally causes death. For vital indications the author has sometimes applied a pneumothorax to the more seriously diseased side when he knew there was an active process on the other side, and in a number of cases with extensive improvement and cure.

Gravesen (Ugeskr. f. Laeger, Jan. '24) reports permanent recovery in 38% of 211 cases 2-12 years after artificial pneumothorax. The cases of complete pneumothorax showed 70% recovery, while those with extensive pleural adhesions showed only 11% recovery. 35 cases of partial pneumothorax treated by Jacobeus' method of cauterization of pleural adhesions showed lung collapse in 22 cases and clinical improvement in 17. Six cases of extensive adhesions developed simple effusions, and 6 other cases developed empyema after this treatment. He advises the continuance of artificial pneumothorax for 3-5 years to avoid relapse.

Hislop (M. J. Austral., Nov. '23) calls attention to the importance of the relation between fluctuations in body weight and mediastinal displacement. The best results in pneumothorax therapy are thought to be obtained with the minimum amount of mediastinal displacement. Excessive displacement may cause spread of latent disease in the functioning lung, dyspnea, palpitation, hydropneumothorax, pleurisy on the sound side and loss of weight. Loss of weight early in certain cases has been made up on reducing intrapleural pressure causing mediastinal displacement.

Maendl (Ztschr. f. Tuberk, Oct. '23) reports 2 cases of unilateral tuberculosis, each of the lower lobe, treated with pneumothorax plus phrenicotomy, with cure. In the second case x-rays after pneumothorax showed incomplete large pneumothorax with adherent apex and broad basal adhesions. Extirpation of 6 cm. of the phrenic nerve after 5 days was followed by a rise of 6.5 cm. of the diaphragm. Refilling after 2 days showed much better compression by X-Ray.

Léon-Kindberg (Presse Méd., Mar. '24) reports the results of animal experimentation done by Hennell and Stivelmann (Survey of Med., Sept. '23) on selective collapse. The author agrees that lung lesions may be selectively collapsed because areas which are the seat of a lesion reëxpand less after a collapse than normal areas. Progressive pneumothorax was induced in 2 of the author's cases, the diseased lobe being the more slowly collapsed. On reëxpansion of the healthy portion the diseased portions were seen to have lost their elasticity and remained collapsed. The author believes this treatment advisable in certain cases which can be carefully followed by X-Ray because under this treatment functional phenomena are diminished or entirely suppressed.

Yoon (Beitr. Z. Klin. I. Tuberlr., Feb. '24) studied the effects of relaxation and compression and hydropneumothorax on the normal and tuberculous lung with and without phrenicotomy on animals with both the human and bovine type. Pneumothorax lungs have a less copious blood supply than normal lungs, and compression pneumothorax acts more intensely than relaxation pneumothorax. The former is absolutely indicated in pulmonary hemorrhages. The lung tissue undergoes connective tissue obliteration, especially under the continuous action of compression. The effect of relaxation pneumothorax is less drastic; the lung tissue is well preserved and has a moderate blood supply, but in compression pneumothorax it is pressed together and becomes very bloodless. The lung obliterated by pneumothorax cannot again be capable of respiration on account of cicatricial contraction and destruction of alveolar cells. The cicatricial pneumothorax lung incapable of function can be extirpated together with all tuberculous foci without disturbing the animal (rabbit). Part of the lung can also be resected after pneumothorax; the collapsed lung contains little blood and air. For complete cure of tuberculosis under pneumothorax the time varies; in rabbits the author has seen cicatricial healing in 6-7 mos. In the treatment of chronic unilateral tuberculosis slight compression pneumothorax of at least 7 months' duration is recommended.

Eloesser and Brown (Am. Rev. Tuberc., Feb. '24) describe a method of treating adhesions holding open a cavity after artificial pneumothorax while other parts of the lung are collapsed. Instead of attempting the division of adhesions through a minute key-hole opening by means of a thoracoscope according to Jacobaeus' method they made a large anterior trapdoor opening by resecting the first 3 ribs, under local anaesthesia. 2 did well, in 1 the pneumothorax was lost, and 1 developed empyema. The value of this method they consider doubtful. They did the Sauerbruch thoracoplasty in 10 cases, with improvement in 7. They advocate extraction of the phrenic nerve for paralysis of the diaphragm in certain cases.

Davies (Brit. J. Tuberc., Apr. '24) advocates division of pleural adhesions when appearing as bands by X-Ray. He uses a thoracoscope and passes a tenotome into the pleural cavity through an intercostal space by means of fluoroscopy. The electric cautery may be inserted through a cannula and controlled by the thoracoscope introduced through an adjacent intercostal space. If pneumothorax proves inadequate the author employs thoracoplasty, but only when the disease is absolutely quiescent in the sounder lung. He advocates removal of the posterior portions of the first ten ribs, always including the first, right up to the transverse processes. He prefers a one stage operation with 2% novocain anaesthesia of the whole area, and injects 5 minims of alcohol into each intercostal nerve. Section of the phrenic nerve in the neck is said to result in paralysis of the dome of the diaphragm in 80% of cases; it relieves cough and resultant vomiting caused by diaphragmatic adhesions.

Archibald (Am. J. Surg., Feb. '24) considers cases of tuberculosis with general contraction of the affected side the most favorable for extrapleural thoracoplasty. Fever, tachycardia, large amounts of sputum with bacilli and chronic laryngeal or chronic intestinal tuberculosis if not advanced are not contraindications. In patients where regular refills are impossible and in cases where partial or complete pneumothorax has been complicated by chronic pleural effusion and where mixed infection is liable, thoracoplasty is preferable to pneumothorax. His anaesthetic of choice is gas and oxygen, with novocain into the intercostal spaces as far back as possible toward the transverse processes from the 11th to the 5th-6th spaces. The 10th rib is resected first. The 11th rib is left till the last to support the diaphragm until ready to apply a supporting bandage. The two stage operation was used in all but 1 case, with only 1 death in 39 posterior thoracoplasties.

Mariette (Journal-Lancet, Apr. '24) prefers the posterior method of thoracoplasty, done in 2 stages. The base is operated on first and the apex second. There is often a question of removing the 11th rib. Its removal does not materially affect the degree of collapse of the thoracic wall, but it does immobilize the diaphragm. Therefore the degree of mobility of the diaphragm will determine the question of its removal. The 10th rib should always be removed whether the lesion is at the apex or base. If the disease is more marked at the apex the 1st rib should be removed. Patients with a prolonged course of pneumothorax to anticipate often desire thoracoplasty to reduce the treatment period by 1-3 years.

Gravesen (Ugeskr. f. Laeger, Jan. '24) reports 105 patients treated by thoracoplasty since 1916, with improvement in 64 and none in 32. 31 cases were fit for work 2-7 years after operation. Because of the greater risk and the more irremediable conditions involved in thoracoplasty than in pneumothorax a greater need of collapse and a more reliable condition of the better lung are deemed essential. The patient's general condition and other complications claim more deliberation than with pneumothorax. The two stage operation is employed if there is any doubt as to the patient's ability to stand the procedure, though the one stage complete thoracoplasty is preferable when possible. If sufficient collapse has not been obtained by simple thoracoplasty he has resected the anterior ends of the upper ribs (except the 1st), and if this has proved inadequate he has done an apicolysis.

Ameuille and Lardennois (Bull. et mém Soc. méd d'hôp de Paris, Dec. '23) employed Boiffin's operation with wide resection of the 1st to 11th ribs in the juxtavertebral region. They advise general anaesthesia if in 1 sitting. Large amounts of novocain are considered more harmful than a careful general anaesthesia for a tuberculous patient. If the two stage operation is necessary novocain may be used for one or both. In such cases the inferior ribs should be resected first to avoid aspiration of the contents of cavities which are usually in the upper portion of the lung. If the operation must be begun with the upper ribs, aspiration may be avoided by inducing a pneumothorax if adhesions are absent. Phrenicotomy may be used to precede superior costectomy.

Lilienthal (Am. J. Surg., Jan. '24) believes that collapsing thoracoplasty plus phrenic nerve resection puts the lung at rest to a greater degree than any other method. It is applicable only when the other lung is able to support life. Arrest or great improvement are said to follow collapsing thoracoplasty in 75% of cases. Apicolysis with or without rib resection, and extrapleural compression by fat, wax, or mobilized flaps of pectoral muscle may be employed. The obliteration of bilateral apical cavities is justified if the disease in 1 or both lungs otherwise may be arrested.

The type of anaesthesia used varies, some preferring ether if the operation is done in 1 stage, and novocain if done in 2 stages. Others, including Archibald, prefer gas-oxygen, with novocain. Whittemore and Chaffin (B. M. & S. J., Sept. '21) report a case in which they used regional anaesthesia (novocain) into the sulci intercostales and mass anaesthesia (novocain) throughout the field of operation.

Kisch (Arch. f. klin. Chir. '24) writes on the after treatment in thoracoplasty. Regeneration of the resected ribs after thoracoplasty plays a not inconsiderable part in the result. The height of retraction may not be reached for 6-9 months after operation. Very soon after operation small new tracts of bone may develop in the place of the resected ribs and may prevent a more thorough contraction of the half of the thorax operated upon. The author has devised a special corset with arm support and pelvic girdle, permitting full breathing on the normal side, while maintaining maximum compression of the operated side.

Though presented in a fragmentary manner, enough evidence has here been adduced to emphasize the important advance created by the introduction of artificial pneumothorax and extrapleural thoracoplasty with or without phrenicotomy in the treatment of pulmonary tuberculosis not yielding to serious hygienic treatment.

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BOOK REVIEWS

Two Lectures on Gastric and Duodenal Ulcer. By Sir **Berkeley Moynihan.** John Wright & Sons, Ltd., Bristol.

This great authority on ulcer of the stomach and duodenum has set forth in this small volume a resumé of ten years' experience which has been extremely large. 718 cases of gastric and duodenal ulcer, treated surgically, have been considered with a mortality of only one and six tenths percent. Most of the gastric ulcers have been treated by gastrectomy, most of the duodenal ulcers by infolding and gastroenterostomy. Of 531 duodenal cases only 6 developed jejunal ulcers. These figures illustrate the sincerity with which the master surgeon considers the life of the patient entrusted to his care. Many surgeons will derive a fresh impetus to more careful work after spending an hour with these entertaining lectures.

Health Confessions of Business Women by Business Women. Edited by the Division of Industrial Hygiene, Provincial Board of Health of Ontario, December, 1923. 265 pages.

This book, as the title implies, consists of a collection of letters from business women received by the Division of Industrial Hygiene of Ontario in a prize competition conducted by them in order to secure information regarding health problems and their solution. The letters, or extracts from letters, have been grouped in chapters on the philosophy of health, the psychological factors in health, physical health, board and lodging, working conditions, personal maintenance, and the technique of life. These are interspersed with explanatory paragraphs and the salient points of each summed up under the heading "On Dit." There are appended charts on time accounting and food value, and a method of self-examination to assist in so-called stock-taking and regulation of the mode of living. Health hints based, not on the theories and observations of one, but on the actual experiences of some 200 business women under widely varying living and working conditions, make this book of practical use to every business woman.

Peculiarities of Behavior. By **Dr. Wilhelm Stekel.** Boni and Liveright, New York, Publishers. 1924.

In two volumes totalling 665 pages, Stekel analyses and discusses 117 cases abnormal behavior. Among them are cases of narcotomania (drug addition) kleptomania, pyromania, dromomania (runaways), gamblers and sufferers from various tics. In all these cases, the author finds histories of sexual traumata, and explains the abnormal conduct as vicarious methods of sexual gratification, or as impulsive acts instigated by the sexual experiences. The Freudian will here find much material to interest him. The student, ignorant of the multiplicities of sexual abnormalities, will be startled, and probably disgusted with the sliminess of the subject. An unprejudiced reader cannot help being astonished at the agility with which the writer jumps from incidents to conclusions with or even without the help of a symbolism, the scientific foundation of which many have doubts.

Most astonishing and noteworthy is the fact that in this extensive treatise on behavior, no reference whatsoever is found to conditioned reflexes. Many of the case histories disclose behavior situations clearly explainable as conditioned reflexes. These reflexes play such an all important part in determining behavior, that an author who omits this subject in a treatise on behavior has omitted the most vital part of the subject, and may well be criticized for having handled the matter in a most superficial, and incomplete manner, no matter how detailed and elaborate the case histories, and no matter how ingenious the analysis from the Freudian viewpoint.

NATIONAL HEALTH SERIES

Authoritative scientific information on every phase of human health is contained in the twenty little pocket-size books in the National Health Series recently issued by the National Health Council. These books, the last of which has just been published for the Council by the Funk & Wagnalls Company, are written in popular style by twenty of the most eminent physicians and sanitarians of the country. They are intended for the general lay reader and aim to give him at a moderate price the answer to the question of how to get the most out of life by enjoying the best of health. Bound in flexible fabricoid. with dimensions of 4 x 6 inches, they may be conveniently slipped into the pocket and read at leisure. The National Health Council, a confederation of the twelve leading national voluntary health organizations of the United States, with the United States Children's Bureau and the United States Public Health Service as advisory members, has arranged for this notable series in order to make a contribution to the advancement of national vitality.

Titles and authors of the books are as follows:

Man and the Microbe. By C.-E. A. Winslow, Dr.P.H., Professor of Public Health, Yale School of Medicine.

The Baby's Health. By Richard A. Bolt, M.D., Director, Medical Service, American Child Health Association.

Personal Hygiene. By Allan J. McLaughlin, M.D.. Surgeon, United States Public Health Service.

Community Health. By Donald B. Armstrong, M.D., Sc.D., former Executive Officer, National Health Council.

Cancer. By Francis Carter Wood, M.D., Director, Institute for Cancer Research, Columbia University.

The Human Machine. By W. H. Howell, Ph.D., M.D., LL.D., Sc.D., Associate Director, School of Hygiene and Public Health, Johns Hopkins University.

The Young Child's Health. By Henry L. K. Shaw, M.D., Clinical Professor, Diseases of Children, Albany Medical College.

The Child in School. By Thomas D. Wood, M.D., Professor of Physical Education, Teachers' College, Columbia University.

Tuberculosis. By Linsly R. Williams, M.D., Managing Director, National Tuberculosis Association.

The Quest for Health. By James A. Tobey, M.S., Administrative Secretary, National Health Council.

Love and Marriage. By T. W. Galloway, Ph.D., Litt.D., Associate Director, Educational Measures, American Social Hygiene Association.

Food for Health's Sake. By Lucy H. Gillett, M.A., Superintendent of Nutrition, Association for Improving the Condition of the Poor.

Health of the Worker. By Lee K. Frankel, Ph.D., Chairman, National Health Council.

Exercises for Health. By Lenna L. Meanes, M.D., Medical Director, Women's Foundation for Health.

Venereal Diseases. By W. F. Snow, M.D., General Director, American Social Hygiene Association.

Your Mind and You. By George K. Pratt, M.D., Medical Director, Massachusetts Society for Mental Hygiene.

Taking Care of Your Heart. By T. Stuart Hart, M.D., President, Association for the Prevention and Relief of Heart Disease.

The Expectant Mother. By R. L. DeNormandie, M.D., Instructor in Obstetrics, Harvard Medical School.

Home Care of the Sick. By Clara D. Noyes, R.N., Director of Nursing, American Red Cross.

Adolescence. By Maurice A. Bigelow, Ph.D., Professor of Biology and Director of School of Practical Arts, Teachers' College, Columbia University.

Introductions for each book have been contributed by distinguished persons, such well-known names as Mrs. Herbert Hoover, Samuel Gompers, Mrs. August Belmont, Senator Royal S. Copeland, Miss Julia Lathrop, Surgeon-General H. S. Cumming, Dr. Haven Emerson, Dr. A. J. Lanza, Dr. Victor C. Vaughan, Dr. Frankwood E. Williams, and many others being included.

Many thousands of these books had been distributed or ordered even before the entire series was complete, and they have been adopted as text or reference books in numerous colleges and universities. All indications point to the fact that this National Health Series will be of immense value to the promotion of the public health in this country.

Some of these volumes have already been reviewed in the JOURNAL.

Artificial Limbs. Appliances for the Disabled. DR. FLORENT MARTIN. Geneva: International Labor Office. Studies and Reports. Series E (Disabled Men), No. 5. 1924.

As evidence of the increasing activities of the League of Nations, the value of which even its most hostile critics must admit, is a publication on Artificial Limbs, Appliances for the Disabled, which has just been issued by the International Labor Office at Geneva. That there is woeful ignorance in regard to the newer developments of prosthetic appliances, not only among the limb makers but also among the medical profession, no one experienced in the care of amputated cases can deny. There is need for interchange of ideas and dissemination of knowledge, for which the medical journals scarcely provide the proper vehicle. It is this want which the International Labor Office, acting upon the request of the Interallied Committee for the Care of Disabled Veterans, has tried to remedy.

The volume is a compendium containing descriptions of all the standard models of artificial limbs in use in the chief countries of the world, and is by far the most complete work of its kind ever issued. It contains about 500 pages, divided about equally between the upper and the lower limbs, and is illustrated by about 250 cuts, which are not as clear as might be desired. Of particular value are the chapters on the functional value of amputations at different levels, on the care of the stump, and on the special appliances for use with cinematic amputations.

The work of preparing the volume has been entrusted to Dr. F. Martin, director of the Scientific and Technical Institute at Brussels, who acquired a wide experience in the problems of limb fitting during the war. The volume reflects great credit upon its author and ought to serve a very useful purpose. It may be had in either English or French upon application to the Labor Office at Geneva.

Case Records of the Massachusetts General Hospital

ANTE-MORTEM AND POST-MORTEM RECORDS AS USED IN WEEKLY CLINICO-PATHOLOGICAL EXERCISES

EDITED BY
RICHARD C. CABOT, M.D., AND HUGH CABOT, M.D.
F. M. PAINTER, A.B., ASSISTANT EDITOR

CASE 10391

A Canadian mechanic of sixty-nine entered April 25 complaining of dull ache in the right upper quadrant, weakness and jaundice. His personality created confidence in the reliability of the history.

F. H. Good.

P. H. He remembered no diseases of childhood and no other serious illnesses except a nervous breakdown lasting fourteen weeks fourteen years ago, when he had been working too hard as a machinist. For the past eight years he had looked after the tools of a large electric company.

P. I. The November before admission his appetite became poor, so that he gradually ate less and lost strength and weight. Two months and a half before admission he began to have trouble with gas in the stomach and a "dull, dead feeling" in the upper abdomen after forcing down a meal which he did not want. Seven weeks ago he got up one morning feeling weak and disinclined to go to work. For the first time he was nauseated and vomited. The vomitus was about a quart of brownish liquid. He went back to bed, took only liquids during the day, and vomited again in the afternoon. Two or three days later he had sharp nonradiating constant pain in the gall-bladder region, nagging but not very severe. This continued sharp for a week, then during the next two weeks gradually disappeared, leaving a sore ache which was still present at admission. At this time icterus developed, deepening to the present deep green color. He had vomited once to four times a day for seven weeks. The vomitus was now greenish fluid. He had had no solid foods, living on broths of various kinds. His stools were light clay colored and his bowels constipated until the past week, after he had taken enemas every day, bringing away balls of fecal material.

P. E. Emaciated. Skin dry and scaly. Greenish yellow jaundice of skin, mucous membranes and sclerae. Face much darker than the rest of the body. Hair scanty. Left ear drum perforated. All superficial lymph nodes shotty and palpable. Several small ones felt above the clavicle. Skin stretched tightly over ribs. *Lungs.* All sounds distant. *Heart* sounds not well distinguished. Percussion measurements outlined with difficulty as shown in the diagram. No murmurs. All blood vessels thickened. Arteries beaded. *B. P.* 105/65. *Abdomen.* Spasm and marked tenderness in the upper half. Mass across epigastrium, slightly tympanitic, but suggesting a thick walled viscus. Gas could be seen to move by peristalsis in it and could be forced from the epigastrium to the upper part of the right lower quadrant with loud gurgling and a moderate amount of pain. Liver edge not felt because something (mass?) obstructed palpation in the right upper quadrant. Marked tenderness here on deep inspiration. *Rectal examination.* Large internal and external hemorrhoids. Prostate atrophic and slightly nodular but not hard. *Extremities* negative except for small decubitus on the right hip. *Pupils* and *reflexes* normal. Fundi pale and yellow. Disc center very white. Blood vessels tortuous and veins distended, especially on the left.

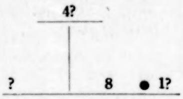


Chart normal except for terminal rise, *T.* 102°, *P.* 120. *Urine.* Amount not recorded, reddish, sp. gr. 1.014, trace to the slightest possible trace of albumin at both of two examinations, bile at both. *Blood.* Hgb. 65%, leucocytes 8,400, polynuclears 84%, reds 2,700,000, slight anisocytosis with a few larger well filled forms but no definite macrocytes or microcytes. Poikilocytosis not marked. No achromia. *Stool* dark red and black, much blood. Guaiac strongly positive. *Serum dilution* 1:300. *Coagulation time.* (1) 18 minutes, (2) 12 minutes, (3) 12 minutes, (4) with $CaCl_2$ 12 minutes. *Clot retraction* 1 hour 54 minutes, (1) fair, (2) slight, (3) slight, (4) slight. *Wassermann* negative. *Gastric analysis. Fasting contents* 68 c.c. of watery greenish fluid. Free HCl 34. Total acidity 54. Guaiac negative. *Test meal* 1 hour five minutes. 47 c.c. of light green soupy fluid with odor like sour dough. Fine white sediment. Free HCl 0. Total acid 40. Guaiac negative. *X-ray.* No suggestive shadows in the gall-bladder region. . . . . . . The patient was unable to stand and the condition would not permit examination of all portions of the stomach. There was a medium six-hour residue and slight delay in the lower end of the esophagus. Duodenal cap irregular. Delay at junction of second and third portions. Ileum and cecum appeared normal.

Orders. April 25. Fat free fluid diet, high caloric. Fluids forced in small quantities. Orange juice ad libitum. Chair patient. Soapsuds enema. April 26. 5% glucose ℥ vi t.i.d. by rectum. April 27. Keep a glass full of fat free milk by the bedside and urge the patient to sip it. Veronal and aspirin each gr. x. April 29. Caffein sodium salicylate gr. xv intramuscularly, later gr. xx by mouth every three hours. (Given once.) Hot water bottles. Hemoplastin 1 c.c. s.c. for bleeding.

In spite of the very great degree of jaundice there was no itching of the skin. The patient grew steadily weaker and April 29 died.

DISCUSSION

BY DR. RICHARD C. CABOT

NOTES ON THE HISTORY

I think it is good practice in these cases as we go through them to have possibilities come up in our minds with every new fact, keeping these possibilities as loose and vague as they should be, but still having something for the mind to work upon as the case goes on. For instance, we deal here with diseases common at sixty-nine, diseases of the right upper quadrant, diseases causing jaundice. Weakness is too general a symptom to give us any lead, but the others give us a good deal. I suppose we should say, here is a man of the cancer age with jaundice; suggestion: neoplasm of the biliary passages. We do not say that he has it, but that idea should be in the background ready to be thrown away if other possibilities come up.

Fourteen years ago he was fifty-five; therefore what should we say about that nervous breakdown? It was something else. It was not a nervous breakdown. He did not have a nervous breakdown at fifty-five; nobody ever had.

A PHYSICIAN: What do you mean by a nervous breakdown?

DR. CABOT: I mean a manifestation of the disease ordinarily known as neurasthenia, neurosis, nervous depression,—a disease without known pathology post-mortem, a disease inborn in the person, and capable of imitating a great variety of organic diseases, which one only excludes by rigid physical examination. I do not believe it can be described in many fewer words than that, although I never tried to describe it before.

He is fifty-five. What could seem like a nervous breakdown? Well, for example, arteriosclerosis, nephritis, hypertension. That would give nervousness, fears, lack of judgment, a thousand things that are often spoken of as nervous breakdown but which when appearing at fifty-five should make us say, I wonder if this is not hypertension or cancer or pernicious anemia or some of the diseases which I have known to be taken for nervous breakdown. Nobody ever died or even had his life shortened by a nervous breakdown. But the diseases which occur at fifty-five and which simulate a nervous breakdown are many of them serious to life.

People never break down from hard work. They just get sleepy and slow down. They break down from hard work plus worry. That is a very different thing.

Loss of weight and strength is the first symptom, and at this age makes us think of what?

PHYSICIANS: Of cancer of the stomach. Of nephritis. Of pernicious anemia.

DR. CABOT: Those are good possibilities. Those are three of the diseases that would jump to my mind before any others.

I suppose that whatever was the cause of his lack of appetite was the cause of his having "gas," so-called.

There was atony of the stomach presumably, with retention of the stomach contents such as the barium X-ray shows when the meal does not come out. Most stomach symptoms are due to poor motor function of the stomach, and that is what I think we have a fair basis for guessing at in this case. Of course the things we have mentioned and many others give poor function of the stomach wall.

The history gets more and more suggestive as we go on. They do not use the term "coffee-grounds" because that is almost diagnostic. It is like saying a person has "rose-spots"; that means that we think he has typhoid fever.

I have no doubt this is a literal transcription of the record, but if we think of a deep green forest and then think how this patient must have looked we shall see how ridiculous the term "deep green" is. It is like most of our color desriptions. No human being was ever deep green or ever will be. What they mean is a yellow with a slight bronzing cast to it which suggests a little touch of green.

When did the icterus develop?

MISS PAINTER: I think it was four weeks ago.

DR. CABOT: This "deep green" conveys to me the state of mind of the examiner. It means that he thought this was a very deep jaundice; he could not express himself.

As we begin the physical examination I should say our guess is still the first one made. Here is a man of cancer age, with icterus. I believe he has cancer. It sounds as if it started in the stomach and metastasized to the liver.

A PHYSICIAN: Could this be cancer of the head of the pancreas?

DR. CABOT: It might perfectly well be. That is another common place of origin, especially if the patient is jaundiced.

NOTES ON THE PHYSICAL EXAMINATION

I suppose "shotty and palpable" means hard and palpable. I do not think much of the term.

"Skin stretched tightly over the ribs" merely means that he is thin.

With people of his age it is very hard to make even a guess at the results of cardiac percussion. I do not think much of it at any age, but few people think anything of it at this age, because we begin to get the flaring barrel chest which used to be called emphysema. That makes the conditions of percussion difficult, though I cannot exactly say what the physics of it is.

"Arteries beaded" means a particular form of arteriosclerosis, calcification of the media.

The blood pressure is rather low.

"A thick walled viscus" can only mean the stomach. One could not call the liver a viscus. One could not call the pancreas a viscus, and presumably they did not mean the colon. So I should think that was only a way of saying the stomach.

I doubt that they saw gas moving. Something could be seen to move. I don't see how they knew it was gas. They might hear it and infer that it was gas. But they saw peristalsis, and inferred from that obstruction of the pylorus.

They felt for metastatic nodes, which are sometimes palpable by the rectum.

The hard prostate is the prostate of cancer.

I surmise that the hemoglobin is less than sixty-five. The count of red cells explains why. That would be a high color index if the hemoglobins were literally 65%. But there is nothing in this case to make us think of pernicious anemia, which is the only disease to give a high color index. I believe the record is wrong. We can tell better when we come to the differential count. I do not believe there was no achromia. I think if we had been there we should have found some achromia.

Of course this man had hemorrhoids, and we cannot tell how much of the blood may have come from them.

The serum dilution test shows that the amount of bile in the blood was something more than ten times the normal amount.

There was very great retardation of coagulation and of the power of retraction in the clot, as we usually get in jaundice.

"Free hydrochloric acid thirty-four" is surprising; "absent" is more like our expectation.

This X-ray record means the second and third portion of the duodenum, not of the stomach. They did not find anything wrong with the stomach, and that suggests what has been spoken of here, pancreatic cancer indenting the duodenum.

They gave him a fat-free diet because of his jaundice, glucose because he was vomiting.

Why on earth wasn't there itching of the skin? There should have been ~~That is~~ a thing we do not know anything about.

DIFFERENTIAL DIAGNOSIS

I do not see how we can have any doubt that he died of malignant disease. The only doubt is whether he died of malignant disease with a secondary anemia in spite of the fact that they have recorded him as having a high color index.

Primary malignant disease of the liver is rare. Primary malignant disease of the bile passages, that is the bile ducts or gall-bladder, is not so rare, and cannot be excluded in any way that I see in this case. That would give him intense jaundice, and his intense jaundice plus his anemia might account for all his stomach symptoms. The other most likely place is the head of the pancreas, which is a rather commoner site for cancer than the bile passages. I do not see any facts in the case that will tell us whether this cancer is in the head of the pancreas or in the bile passages or even possibly in the duodenal papilla just where the bile ducts empty. That is a place where cancer can come, although all other points in the duodenum are notably free from cancer. That is one of the points against the Mayos' theory that ulcer starts cancer, because ulcer of the duodenum is so frequent and cancer of the duodenum is so rarely found.

A Physician: A professor told me at the bedside one day that painless progressive jaundice is pathognomonic of pancreatic cancer.

Dr. Cabot: I should agree that it is strongly suggestive of it. But a gall-stone can cause the same syndrome. One tragic case made me unable to forget that. It was an elderly man with tremendous jaundice and no pain. He was in the medical wards. The surgeons saw him and said, "That is a hopeless case." We let him alone, he died, and at necropsy they found a gall-stone and nothing but a gall-stone. He died of one gall-stone,—a tragedy which could have been prevented. One gall-stone blocking the bile-duct can produce a painless jaundice, why painless I do not know.

A Physician: Was the gall-bladder enlarged in that case?

Dr. Cabot: I cannot remember whether it exemplified Courvoisier's law, "obstruction of the common duct by a gall-stone—small gall-bladder; obstruction of the common duct by cancer—big gall-bladder." Therefore, if we feel a big gall-bladder in a case known to be one of biliary obstruction because of deep jaundice, predict cancer. But if we do not feel the gall-bladder we should not predict gall-stones, because it may be there and we may not have found it. The reason for Courvoisier's law is that if there is a gall-stone in the common duct it was born in the gall-bladder and while it was there it produced a certain amount of cholecystitis, thickened and contracted the gall-bladder, so that when it got down into the common duct and blocked it there was a small contracted gall-bladder behind. On the other hand cancer does not often start in the gall-bladder. When it obstructs the common duct the gall-bladder is perfectly free and therefore distends. It was a surgeon's rule worked out in relation to the question whether it was worth while to go in drastically in these cases. If one felt a big gall-bladder he was discouraged.

A Physician: Would an examination of the duodenal juice or pancreatic enzymes be of any use in deciding whether it was cancer of the liver or of the bile-ducts?

Dr. Cabot: No, we have not enough data there to be of any use. Of course the site of this tumor is an unimportant point. It is an inoperable cancer in my opinion anyway.

But could this be a gall-stone of the type I have just described? They thought they felt the gall-bladder, but otherwise it might be. So that it is conceivable that this is another tragedy like the one I spoke of. But gall-stones do not cause anemia so far as I know, and that is a point against any such possibility.

A **Physician**: He must have had some obstruction of the duodenum because of the peristalsis.

Dr. Cabot: Without that, you mean, we should not have had visible peristalsis of the stomach. But in a very thin patient—and this man is very thin—we sometimes see the peristalsis of the normal stomach. Still I think the chances are that there was obstruction there, and I feel no considerable doubt of there being malignant disease there, whether in the pancreas or in the biliary passages I do not know, but on the doctrine of chances I should say in the pancreas.

A **Physician**: Do you notice any real difference between the type of jaundice with malignancy and the other?

Dr. Cabot: No, I think it is all a question of intensity. As a rule we have the most intense jaundice with malignant disease, but as in the case I have mentioned there may be tremendous jaundice with gall-stones. The intensity depends on whether it is complete obstruction or incomplete.

CLINICAL DIAGNOSIS (FROM HOSPITAL RECORD)

Obstructive jaundice from malignancy (?).

DR. RICHARD C. CABOT'S DIAGNOSIS

Inoperable cancer of the pancreas or possibly the biliary passages with obstruction.
Secondary anemia?

ANATOMICAL DIAGNOSIS

1. *Primary fatal lesion*

   Adenocarcinoma of the head of the pancreas with metastasis in liver.

2. *Secondary or terminal lesions*

   Obstruction and dilatation of the common and hepatic bile ducts and of the duct of Wirsung.
   Atrophy of the body and tail of the pancreas.
   Icterus.
   Slight ascites.
   Edema of the lungs.

3. *Historical landmarks*

   Slight chronic pleuritis.
   Slight arteriosclerosis.

Dr. Richardson: This man was emaciated and his skin was a very intense saffron yellow. The abdomen was not distended, in fact was rather hollow. That perhaps may have had something to do with the show of peristalsis. There was about 500 c.c. of thin pale bile-stained fluid in the peritoneal cavity. The stomach was large, the mucosa flat and pale. The fecal material was pinkish gray-white, soft.

The margin of the liver was at the costal border in the right mammary line, but in the right axillary line it pushed down nearly to the crest of the ilium.

There were a few old pleural adhesions. The lung tissue was bile-stained, and in the peripheral portions there was some emphysema.

The aorta showed a slight to moderate amount of arteriosclerosis with some rather well-marked fibrosis in the branches, but all told not a great amount of sclerosis.

The liver weighed 1360 grams, the tissue markedly bile-stained.

No papilla was found in the duodenum. The head of the pancreas was enlarged. The enlarged common bile duct, about four cm. in circumference, disappeared in the new growth tissue in the head of the pancreas. The duct of the pancreas beginning in the tail came down as usual and was caught in the mass. It was dilated down to that point. The further portions of these ducts were lost in the new growth. The hepatic duct was greatly dilated, as were the radicles of the hepatic in the liver out as far as the liver surface. The cystic duct was dilated, about 2 cm. in circumference. The gall-bladder was enlarged to 16 cm. by 6.5 cm. by 3 cm. No stones were found. Mucosa negative.

Dr. Cabot: That bears out Courvoisier's law.

Dr. Richardson: There was a small hydrocele on each side.

Dr. Cabot: Did that mass indent the wall of the duodenum enough to cause any obstruction of it?

Dr. Richardson: I think not.

Dr. Cabot: And there was no hypertrophy of the stomach wall to suggest that there was any obstruction?

Dr. Richardson: No. The stomach was large, the mucosa flat.

Dr. Cabot: So that you would guess that the reason they saw peristalsis here was because the patient was so thin? I suggested that possibility, and it is a good thing to remember.

The question is asked, what caused the vomiting in this case? I cannot give any exact answer. People with what we call catarrhal jaundice vomit. Any type of jaundice makes people vomit. Any severe secondary anemia may make people vomit. But my guess is that we had better say "cholemia" or poisoning by some of the retained products absorbed into the blood by biliary obstruction. We do not know why, but it is familiar that cholemic patients may vomit. Then we have to say that some do not, just as with itching. Some do and some do not. There are many mysteries about jaundice.

There was a good deal of blood in the stools.

Was there anything up there that would have produced it, or did it probably come from the piles?

Dr. Richardson: Nothing.

A Physician: Was there any metastasis?

Dr. Richardson: A very small one in the liver.

Dr. Cabot: How would it have been to shell out that tumor and leave the rest of the pancreas?

Dr. Richardson: I had hard work to get it out.

Dr. Cabot: Ordinarily we should know that there was no use thinking about operation because of the metastases. But this case made me wonder if anybody ever did try to cut a cancer of the pancreas out.

A Physician: Was it primary in the duct?

Dr. Richardson: It was primary of the pancreas.

CASE 10392

A colored American girl six years old came to the Emergency Ward May 6. The complaint was cough and hemoptysis.

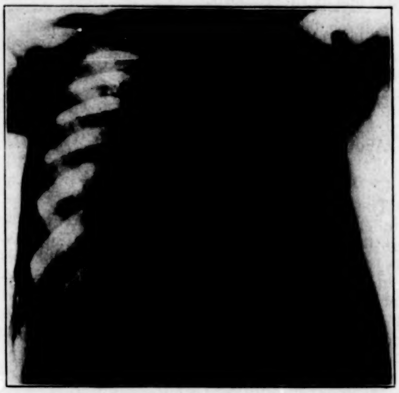
F. H. Her parents lost one child at the age of two and a half of "heavy cold."

P. H. She was normally delivered at full term, weighed 8½ pounds at birth, and gained well, but made slow development. She walked at three years. She had whooping cough, and at four years influenza. She had had no other disease that the mother knew, but had lived with her father and had not been seen by her mother for two years until the day of admission.

P. E. A poorly developed and nourished child with rapid respiration. Examination was incomplete on account of hemoptysis. Chest markedly deformed. *Lungs.* Dullness to flatness all over left chest. Many moist râles over left apex. Tubular breathing at left axilla. Diminished breath sounds all over left chest anteriorly. Posteriorly the breath sounds came through bronchovesicular in type. Many moist râles. Suggestion of bronchovesicular breathing over right apex. *Heart* not recorded except action rapid but regular. No abnormality of *abdomen, genitals, pupils* or *reflexes* recorded. *Extremities.* Bowing of arms and legs, signs of old rickets. Clubbed fingers.

T. 98.4°-103.4°. *P.* 140-187. *R.* at admission 30, afterwards 48-91. *Urine.* Amount and sp. gr. not recorded, no albumin or sugar, 5-10 leucocytes at the single examination. *Blood.* Hgb. not recorded, leucocytes 20,000-18,000. *Stool.* Gross blood. *Pirquet* negative. *Sputum culture.* Streptococci and staphylococci. *X-ray* May 10. Spine showed well marked scoliosis. Left chest dull except for a small area in the axillary margin. Dullness of even density throughout, obliterating the shadow of the diaphragm on this side. Heart seemed displaced toward the affected side. Right lung clear as far as could be made out from these plates, which were rather unsatisfactory. *May 14.* Plates confirmed previous observation.

May 13 thoracentesis was done and 5 c.c. of thick creamy yellow fetid-smelling pus removed from the left chest. Microscopic examination showed many pus cells and many streptococci and diplococci. Culture showed staphylococci and colon-like bacilli.



The spine shows well marked scoliosis. The left chest is dull except for a small area in the axillary margin. The dullness is of even density throughout, obliterating the shadow of the diaphragm on this side. The heart seems displaced toward the affected side. The right lung is clear as far as can be made out from the plates, which are rather unsatisfactory.

May 14 operation was done. The child seemed to be in very poor general condition, and defecated on the operating table just before the operation. She died on the table.

Discussion

BY DR. FRITZ B. TALBOT

The outstanding facts in the history are whooping cough, influenza and hemoptysis in a negro child. In my experience hemorrhage from the lungs is a relatively rare condition in childhood.

The physical examination showed marked lung pathology which must have been chronic because of the clubbed fingers, the great extent of dullness, and the change in breathing described. There was gross blood in the stools which in all probability came from blood coughed up into the throat and then swallowed. This happens frequently in childhood.

The features in this case characteristic of pulmonary tuberculosis are hemoptysis in a negro child following whooping cough and influenza. There was no history of contagion obtainable. The failure to find tubercle bacilli in the sputum seems against tuberculosis. The absence of a positive skin tuberculin test can also be taken as evidence against tuberculosis. It does not rule it out, because the disease may have been so generalized and have progressed so far that the body was incapable, as in miliary tuberculosis, of giving the reaction. If it is not tuberculosis the lung pathology can be explained only by many abscesses due to the earlier attack of influenza. This was considered as a possible etiology, but was ruled out on account of the hemoptysis. The clinical picture is a characteristic one of tuberculosis.

DR. TALBOT'S PRE-OPERATIVE DIAGNOSIS

Pulmonary tuberculosis.
Empyema.

PRE-OPERATIVE DIAGNOSIS

Acute empyema, encapsulated.

OPERATION

The patient was placed with the left side up. Under novocain anesthesia a small portion of the ninth left rib in the posterior axillary line was resected. Just as the pleura was opened with a hole only large enough to admit a director the patient's pulse became extremely slow. The child coughed up a small amount of pus and suddenly stopped breathing. Artificial respiration failed to resuscitate her.

Of the possible causes of death (1) pleural shock seemed unlikely because the pleura was well anesthetized and had previously been punctured in several places during the chest taps. (2) Pneumothorax with collapse of the lung was unlikely because of the extremely small hole in the pleura and the fact that there was no cough and no signs of embarrassed respiration such as would attend a sudden displacement of the mediastinum. (3) Toxic action of novocain seems unlikely because less than 40 c.c. was employed and no symptoms of novocain poisoning preceded death. (4) The best probability seemed to be the sudden release of pressure in the encapsulated empyema with a bronchial fistula which allowed the pus to flow into the other lung, further reducing the vital capacity, which was almost nil before.

FURTHER DISCUSSION

DR. EDWARD L. YOUNG, JR.: In the face of an empyema the main consideration is drainage. The method is however extremely important when the patient is in as poor shape as this one, and it would seem as though the least possible that could be done to give drainage would be the thing indicated. That is of course a chest puncture with a large trocar and drainage through a catheter.

Apparently the surgeon thought this would not give drainage enough. Under local anesthesia a rib resection was done. The child died at once as described. It seems to me that such explanations as are here given are not necessary, even though they are not very complicated. We can simply say the child died because it did not have enough remaining vitality to live; what was done was the straw which broke the camel's back.

CLINICAL DIAGNOSIS (FROM HOSPITAL RECORD)

Chronic empyema.
Pleural shock.
Lobar pneumonia.

DR. FRITZ B. TALBOT'S DIAGNOSIS

Hemoptysis.
Pulmonary tuberculosis.
Empyema.

ANATOMICAL DIAGNOSIS

1. *Primary fatal lesions*

Tuberculosis of the bronchial, mesenteric and retroperitoneal glands.
Tuberculosis of the lungs, miliary and with minute caseous areas.
Tuberculous ulcers of the intestine.
Miliary tuberculosis of the peritoneum, liver, spleen and kidneys.
Tuberculous meningitis.

2. *Secondary or terminal lesions*

Hemorrhagic areas of lower lobes of lungs.
Slight serosanguineous hydrothorax.

3. *Historical landmarks*

Slight chronic pleuritis.

DR. RICHARDSON: There was some distension of the abdomen, more pronounced on the left side.

The mucosa of the small intestine just above the ileocecal valve presented three small frank tuberculous ulcers. The mucosa of the ascending colon showed three similar ones.

The mesenteric glands were moderately enlarged. Many of them showed caseous areas, and some of them were in close association with the wall of the intestine in the region of the ulcers mentioned. The retroperitoneal glands were considerably enlarged. Many of them showed caseous areas.

The margin of the liver on the right side was 8 cm. below the costal border. The diaphragm was at the sixth interspace on the right, the seventh on the left.

The right pleural cavity contained a few cubic centimeters of thin cloudy fluid and fibrin. The left cavity in the region of the lower half contained about 300 c.c. of pus. On the right side there were a few old adhesions to the diaphragm. The left lung was bound down generally by old adhesions except where they walled off the portion of the pleural cavity containing the pus.

The bronchial glands were enlarged and markedly caseous.

In the apical region of the right lung there were a few scattered tubercles. The pleura over the upper lobe of the left lung was thickened up to 5 mm. in places and on cross section showed here and there small caseous areas. From this thickened pleura fibrous trabeculae extended into the lung tissue beneath, which was leathery, dark red, and in its middle portion presented a small cavity partly filled with purulent material. A dilated bronchus communicated with the cavity. Tubercles were scattered in the tissue elsewhere.

The liver showed a few tubercle-like nodules.

The spleen showed a few tubercles on its surface, no definite ones in the substance.

The head was not examined.

Dr. Talbot: The interesting feature of this case is the very extensive tuberculosis of the lungs and elsewhere which was not discoverable by physical examination. An examination of the X-ray plate is also of interest. In the light of the anatomical findings it is obvious that the child could not have recovered under any circumstances. It is surprising that with such advanced and generalized phthisis tubercle bacilli were not found in the sputum.

NOTE BY DR. G. W. HOLMES

The absence of any definite evidence of miliary tuberculosis in the right lung is probably due to the motion. Small tubercles may become invisible in the presence of even a small amount of motion. The massive density on the left side obliterates all the finer details. The X-ray findings here may be interpreted as showing absence of all normal lung structure, but do not give us any clue as to the kind of pathology.

CASE 10393

An American woman of twenty-five, unoccupied, badly deformed, and of subnormal mentality, entered September 13 for relief of swelling over the left groin and thigh.

F. H. Not recorded.

P. H. She had been deformed since babyhood. She had scarlet fever at eleven and influenza at twenty-one. She had had trouble with her right lung. Eight years before admission she had some fluid removed from the left chest cavity. Ever since this time she had been troubled with dyspnea. Nine months before admission she began to have discomfort after drinking a very small quantity of water or taking food. Belching always gave relief. The symptom had grown gradually better until now she was almost free from it. For a month she had had a productive cough. She urinated twice at night. Her catamenia began at twenty and ceased eight months ago.

P. I. Three months ago both legs began to pain and were stiff when she first got up. Gradually a tender swelling appeared in the left groin. She had pain on getting up or sitting down. She had a doctor, and was said to have run an evening temperature of 102° for a week. There was no later record. About a month ago a slightly red tender swelling appeared on the outer side of the upper left thigh. This had gradually increased.

P. E. A poorly developed and nourished, badly deformed girl in much distress and anxiety. Cervical glands enlarged. Apex impulse of the *heart* not recorded. A_2 accentuated. Sounds of poor quality. Systolic murmur heard all over the precordia, best at the apex. Action rapid. *B. P.* 105/70. Chest signs as shown in the diagram. *Abdomen.* Liver edge palpable 1 cm. below the costal margin. *Pelvic* and *rectal examinations* not done. *Extremities.* Left hip held in forty or fifty degrees flexion, but motions of joints free and without pain. A large, fluctuant, inflamed, tender swelling the size of a large orange over the outer upper part of the left thigh. Considerable swelling of the left groin and edema of the left leg from the knee down. Right leg normal in motions. No swelling or edema. *Pupils* and *reflexes* normal.

Before operation *T.* and *R.* normal, *P.* 99-88, *Urine* and *blood* not recorded. *Sputum* negative. *Wassermann* not recorded. *X-ray.* Extensive destructive process in the dorsolumbar region. Marked kyphosis characteristic of Pott's disease. Surrounding this portion of the spine was an area of increased density, probably representing old abscess. Hip joint and femur were not abnormal in appearance. Irregular spots of increased density overlying region of buttocks at some distance from the bone shadow, suggesting opaque material in the skin.

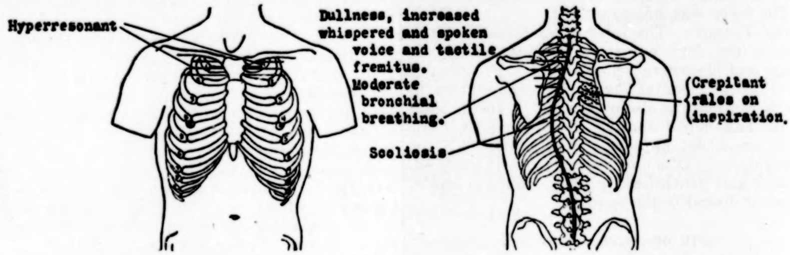
September 14 operation was done. The wound was Dakinized every two hours at first, September 17 every three hours. September 18 the temperature rose to 104.2° and continued with wide daily swinging between 98.4° and 104.4°. The wound drained well. September 22 the right lung showed many râles, no dullness. September 24 a large abscess of the vulva was discovered, for which hot sulphonaphthol dressings were ordered. September 26 she complained of abdominal discomfort. The abdomen was tender. September 28 she had diarrhea and felt uncomfortable, though she sat up in a chair. September 29 she died.

Discussion

BY DR. EDWARD L. YOUNG, JR.

The whole picture in this case suggests tuberculosis, i. e., trouble with the lung, fluid in the chest cavity, productive cough. Amenorrhea of course may be due to tuberculosis of the tubes, but in such a case as this may be simply a natural protective mechanism against any loss of body fluid. The swelling in the left groin of course can be many things, but it suggests a septic process. It is tender, slightly red, and she has been running an evening temperature. That certainly suggests an abscess, probably from some tuberculous focus wandering down the ileopsoas muscle.

Examination seems to help the suspicion of tuberculosis, with cervical glands enlarged and the signs in the chest as given which might be from tuberculosis. The fact that the motions of the left hip were free and without pain means that the tuberculous infection, if it is such, comes from the spine rather than from the hip joint. Tuberculosis of the shaft of a long bone is extremely rare, and if it is osteomyelitis of the shaft it is so atypical that it is not fair to consider it without X-ray evidence. The X-ray evidence as here given backs us up in our diagnosis of tuberculosis of the spine with an abscess migrating to the thigh. The description of the mass is the description of a process, and I have no better diagnosis than an abscess starting from a tuberculous focus perhaps in the spine and presenting below Poupart's ligament in the thigh. The operation of course was the drainage of the abscess.


Hyperresonant
Dullness, increased whispered and spoken voice and tactile fremitus. Moderate bronchial breathing.
Scoliosis
Crepitant râles on inspiration.

DR. YOUNG'S PRE-OPERATIVE DIAGNOSIS

Tuberculous abscess.

PRE-OPERATIVE DIAGNOSIS

Tuberculous abscess of the hip.

OPERATION

Novocain infiltration over outside of the left thigh. Abscess incised and found to extend up over and behind the great trochanter. The hand could be passed almost entirely around the femur from the region of the trochanter down to about three inches below it. A second incision was made posteriorly to give better drainage. Eight Dakin's tubes inserted through the two incisions, three tubes being placed behind the trochanter.

FURTHER DISCUSSION

Operation shows what we expected, and the abscess, which is by this time mixed, was drained and Dakinized. The extent of infection in a case such as this is so great that it is not surprising that she continued to run a temperature. The question in my mind is whether or not there is a septicemia or a pyemia.

The right lung showed many râles the week after operation, but this may be due simply to weakness and position. Two days later the large abscess of the vulva suggests the pyemic process which I have considered. The abdominal discomfort, tenderness of the abdomen, and diarrhea may be due to a tuberculous process in the bowel, and she may have had a perforation without much evidence. I believe Dr. Richardson will find extensive tuberculosis of the spine and of the intestinal tract, with abscesses perhaps in the kidneys, liver or lungs, and a positive blood culture.

CLINICAL DIAGNOSIS (FROM HOSPITAL RECORD)

Osteomyelitis of the left femur (tuberculous).
Pulmonary embolism.
Incision and drainage of left femur.

DR. EDWARD L. YOUNG'S DIAGNOSIS

Tuberculosis of spine with
Tuberculous abscess of thigh.
Tuberculosis of intestines?
Septicemia.

ANATOMICAL DIAGNOSIS

1. *Primary fatal lesion*

Chronic tuberculosis of the spine (Pott's disease).
Evacuated abscesses of the left labia and left thigh.

2. *Secondary or terminal lesions*

General purulent peritonitis.

3. *Historical landmarks*

Chronic endocarditis of the aortic and mitral valves.
Obsolete tuberculosis of the bronchial glands.

General chronic peritonitis.
Chronic pleuritis.
Operation wound.

Dr. Richardson: The left labium was swollen, and there was an irregular margined opening leading down into a partially evacuated cavity. The cavity contained yellowish necrotic material. In the upper part of the left thigh there was a long incision which extended down into the deep portions of the region of the upper end of the femur. On the back, about the level of the inferior angles of the scapulae, the spinal column showed marked backward bowing. The lower part of the sternum bulged forward. The feet and ankles were swollen and pitted on pressure.

The peritoneal cavity contained much purulent fluid. The abdominal organs generally were more or less firmly bound together by dense old membranous adhesions which were coated with fibrinopurulent material. There was no fluid in the pleural cavities. The lungs were bound down generally by old adhesions, a little more extensively on the left. Several enlarged bronchial glands showed obsolete tuberculosis.

The myocardium, valves and cavities were negative except for a slight amount of chronic endocarditis of the aortic and mitral valves.

In the region of the lower thoracic spine and the first portion of the lumbar there was marked kyphosis. The bodies of the twelfth thoracic and first lumbar vertebrae showed much deformity and fibrosis, but no definite areas of softening.

Dr. Young: The peritonitis is I assume a pyemic manifestation, just as the abscess of the left labia was.

ERRATUM

Through a technical error the diagnosis of Case 10332, August 14, 1924, was given as Huntington's chorea. The diagnosis should be Sydenham's chorea.

CURRENT LITERATURE

ABSTRACTORS

Gerardo M. Balboni
William B. Breed
Laurence D. Chapin
Austin W. Cheever
Randall Clifford
Ernest M. Daland
Horace Gray
Robert M. Green
John B. Hawes, 2nd
John S. Hodgson
Fred S. Hopkins
Chester M. Jones
Charles D. Lawrence
Tracy Mallory
Herman A. Osgood
Francis W. Palfrey
Edward H. Risley
George C. Shattuck
William H. Shedden
Warren R. Sisson
John B. Swift, Jr.
George G. Smith
W. T. Sherman Thorndike
Wilder Tileston
Henry R. Viets
Shields Warren
Bryant D. Wetherell

Regeneration of the Vas Deferens

Rolnick, H. C. (*Archives of Surgery*, July, 1924). This author concludes from his work that the vas is able to regenerate and undergo repair following extensive trauma in the form of multiple longitudinal and oblique incisions. Following multiple transverse incisions, restoration of the lumen does not occur. Ligation with absorbable material is only a temporary measure. In all six experiments in which the vas was ligated with catgut, restoration of the lumen took place. This will also occur in a certain number of cases in which even nonabsorbable material is used. The presence of a foreign body in the vas for a considerable length of time does not in itself produce occlusion of the lumen. Neither does occlusion occur when the vas is sutured into the skin or exposed outside of the skin for a number of days. The vas will regenerate itself if divided or resected for as much as one-half of its length provided the sheath is left partly intact or reunited if severed. Without the sheath, regeneration occurs only in a small percentage of cases. Suture of the severed ends of the vas does not require any special technic. The one point of particular importance is the coaptation of the severed ends of the sheath.

[E. H. R.]

Thyrocardiacs

Lahey, F. H., and Hamilton, B. E. (*Surgery, Gynecology & Obstetrics*, July, 1924). These authors present a very interesting study of the diagnostic difficulties in this type of case and their surgical treatment. They state that in the earlier years of thyroid surgery a certain definite group of cardiac cases, generally those with decompensation, were refused operation because of the cardiac risk. They find now, however, on careful study that many of these cases with proper rest and proper treatment beforehand can be subjected to thyroidectomy with great relief. The treatment consists largely in a period of rest before operation, repeated doses of morphine, an occasional venesection, and the administration of oxygen. These cases are done under gas oxygen anaesthesia instead of local. They have recently done thirty-eight cases falling in this type, with a mortality rate of 2.6.

[E. H. R.]

Rupture of the Uterus

Hillis, D. S. (*Surgery, Gynecology & Obstetrics*, July, 1924). This author discusses this condition following a primary caesarean section, and draws the following conclusions:

1. The scar of the classic caesarean section may rupture not only during labor but at any time during the last three months of pregnancy.
2. Two of the cases reported had fever following previous caesarean sections, in two the puerperium was afebrile.
3. On these cases the location of the placenta over the scar seemed to have no influence. The sections show fragments of syncytium over the scar in two and in two there are no signs of placental tissue in this location.
4. Trauma may have had a place in the etiology of one patient. The patient fell to the floor in a faint before the pain began. The pain, severe and sharp, was the first symptom noted in the three other cases. The uterus ruptured while the patient was asleep in bed in Case 2.
5. The rupture in the caesarean scar often allows the uterus to empty itself completely, permitting good contraction and retraction which stops haemorrhage.
6. External bleeding was not present in any of the four because labor had not begun and the cervix was closed. External bleeding is a very common sign in rupture of uterus during labor.

7. Scar tissue was present in abundance in the sections of all of these cases and the line of rupture was in the scar tissue.

8. In each of these cases the uterus was found opened by an incision in the median line of the anterior wall extending from the upper limits of the cervix to the fundus. The contraction of the uterus held the edges of the wound so far apart that they could be approximated only with great difficulty.

9. It is believed to be good practice to remove the uterus in these cases because of the time required to freshen scar edges and the danger of a second rupture in subsequent pregnancy.

[E. H. R.]

THE TREATMENT OF INFANTILE TETANY BY CALCIUM CHLORIDE

GRAHAM, S., and ANDERSON, G. H. (*British Medical Journal*, May 24, 1924), discussing the treatment of infantile tetany, state that they have invariably been successful in the oral administration of calcium chloride in doses of from 15 to 20 grains at intervals of four hours, in causing not only a rapid cessation of the convulsions but a complete disappearance of all signs of tetany.

[R. C.]

THE TREATMENT OF EMPYEMA IN CHILDREN

FRASER, J. (*Edinburgh Medical Journal*, June, 1924), in a most excellent article discusses the treatment of empyema in children. He emphasizes three points which should be determined before the line of treatment can be chosen.

1. The general condition of the child.
2. A study of the type of the infecting organism. He found that in 53 pneumococcal cases the mortality averaged 6 per cent., while in 17 streptococcal cases the mortality was 24 per cent. He emphasizes the fact that in pneumococcal infection the effusion is limited by dense and extensive adhesions, whereas in streptococcal infection the effusion is widespread and adhesions are few.
3. The presence of adhesions between the visceral and parietal pleura. He points out that this may be determined by x-ray and by measuring the intrapleural tension by a water manometer. He finds that if adhesions do not exist the rhythmic rise and fall of the water manometer is maintained but the levels are exaggerated; whereas if the lung is bound down to the chest wall the oscillation of the tension is diminished.

[R. C.]

THE CAUSE AND SIGNIFICANCE OF DYSPNOEA IN PULMONARY DISEASE

MEAKINS, J. (*British Medical Journal*, April 5, 1924), in a most excellent article discusses dyspnoea in various types of pulmonary disease. He states that the effect of acute oxygen want is to produce a moderate degree of dyspnoea which is not so much due to the lack of oxygen as to the fact that the organism has not sufficient time to lower the hydrogen-ion concentration of the blood by removing carbon dioxide. He emphasizes the fact that when inflammatory lesions are confined to the larger bronchi respiratory distress is rare, but as soon as alveolar inflammation or irritation occurs, the rate of the respirations increases and synchronously the depth becomes much less. In discussing the treatment of dyspnoea he says that the first object to be attained is the removal of the obstruction, and advocates the use of oxygen promptly and in sufficient quantity in all acute cases which show any degree of cyanosis. [R. C.]

SOME FUNDAMENTAL FACTORS CONCERNED IN THE SPREAD OF INFECTIOUS DISEASE

DUDLEY, S. F. (*The Lancet*, June 7, 1924), discusses at length the spread of infectious diseases, giving the factors which govern the constantly changing balance between man and the microbes that depend upon him. He says that man forever interferes with the environment and mixes up the living conditions of himself and other organisms. By these means the balance between himself and his parasites is continually upset. The penalty for this upset is disease and epidemics, which are due to the parasites or the hosts not being able to adjust themselves quickly enough to the new conditions in their environment. Man, with his domestic animals and plants, though no more highly parasitized than many wild animals, yet in comparison to the latter almost monopolizes parasitic disease.

[R. C.]

DIAGNOSTIC UTILITY OF LÖWENSTEIN'S TUBERCULIN SALVE

MAENDL, from his sanatorium at Grimmenstein, reports (*Wien. klin. Woch.*, March 27, 1924) his results in the diagnostic use of Löwenstein's tuberculin ointment in 60 adult cases. It gave a positive reaction in almost 100 per cent. In no case was any injury observed. The reaction strength is essentially the same as that of Ektebin; in some cases it seemed slightly stronger. The preparation is cheaper than Ektebin, and, on account of its thinner consistency, can be rubbed in more easily.

[R. M. G.]

HEMATURIA—ITS SIGNIFICANCE

MACKENZIE, D. W. (*Surgery, Gynecology and Obstetrics*, August, 1924).

This author makes a brief clinical study of 821 consecutive cases and classifies them according to the organ from which the bleeding came, viz., kidney, ureter, bladder, prostate, and urethra. An analysis of these 821 cases shows that 192 were due to calculi, 113 to tumors, 88 to renal tuberculosis, and 143 to surgical infections of the urethra and kidneys; or, excluding the urethra, 536 cases out of 761, i. e., over 70 per cent., were caused by calculi, tuberculosis, cancer, or surgical lesions of the kidney, while the other 30 per cent. most certainly required investigation.

[E. H. R.]

TUBERCULOUS CYST OF THE SPLEEN

PECK, C. H. (*Surgery, Gynecology and Obstetrics*, August, 1924).

Peck reports a case and case history with operative findings and recovery. He draws the following conclusions:

"Primary tuberculosis of the spleen, though rare, is a distinct entity, and is curable by operation in favorable cases. Without splenectomy a fatal termination is inevitable.

"Splenectomy is indicated in certain cases of secondary tuberculosis of the spleen, when the splenic lesion is predominant and the supposed primary lesion is a healed tuberculosis or susceptible of cure.

"Giffin's case is an example of this condition. Polycythaemia occurs in a certain percentage of cases and probably adds to the gravity of the prognosis, but does not contraindicate operation when the splenic tuberculosis is the dominant factor in the case. The prospect of a complete cure and restoration to health in patients surviving splenectomy is demonstrated by several of the reported cases."

[E. H. R.]

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PHYSICIANS IN THE LEGISLATURE

Few physicians in Massachusetts have felt inclined to seek election to the Legislature. Seldom has the medical profession been represented by more than four or five in this body. Usually medical members of the Legislature have been most useful in helping their associates to form intelligent opinions relating to public health matters. Some physicians have exerted great influence, but generally the number has been so out of proportion to the greater quantity of lawyers and business men that where political or personal influence has been exerted against the position taken by doctors, some important measures have been adversely dealt with.

Doctors are, as a class, very little given to playing politics, and this is an added disadvantage in an assembly where there are astute politicians. In this country there are men who make a business of politics. Their continuance in office indicates that they are in the main successful in their chosen vocation. This means that they succeed in pleasing their constituents; otherwise they would be displaced.

We have deplored the disinclination of physicians to enter the political arena, but no one can logically blame a person engaged in an agreeable occupation who declines to sacrifice his most important interests and take on work for which he is inadequately fitted by experience or temperament, or both. We contend that the educated physician has a better conception of the needs of the people outside of the limited sphere of some business aspects than any other class of citizen. His unfitness, if it exists, only applies, as a rule, to the controversial side of public life.

If questions of public health policies could always be considered on the theory of the greatest good to the greatest number and be freed from purely political expediency, it is possible that more physicians would offer themselves as lawmakers. Physicians who can afford to enter legislative service are usually past middle life, have had little forensic training, seldom are skillful in debate and are disinclined to enter upon controversy. The habits and inclination of physicians in some other nations are unlike those of this country. In England, for example, physicians do not seem so reticent about dabbling in the muddy pool of politics, as has been said of this form of public life.

Within a few weeks we have seen how difficult it is for the medical profession to secure the nomination of one of its members, as shown by the result of the primary in the First Middlesex Senatorial District, where there was a united effort on the part of the doctors to nominate a physician who would, if elected, prove of great value to the State. His nomination was urged because of the importance of having a strong man familiar with matters relating to public health measures, and he was endorsed by many of the leading physicians of his district.

His opponent, through his campaign manager, characterized him as an unknown candidate and alleged that a bill is to be introduced into the Legislature that will extend compulsory vaccination to revaccination, and, further, that all citizens must be inoculated against diphtheria, scarlet fever and typhoid. We challenge the opponents of the physician referred to to bring credible testimony that the medical profession intends through any authorized committee to offer any plan for compulsory inoculation of all of our citizens against diphtheria, scarlet fever and typhoid.

It would be most logical to require compulsory revaccination against smallpox in certain instances, but until the present vaccination laws are made better than they now are it would be folly to attempt anything very drastic.

The argument used by the supporters of the present nominee is political buncombe and unworthy of even any intelligent politician. The tactics employed, if endorsed by the nominee, raise a definite question as to his fitness for the important position of State Senator.

As a medical journal we are not considering any party affiliation, for if, of representatives of the political parties, one should be a strong, safe exponent of better health laws, we would prefer him regardless of his party designation.

We believe in the stand once taken by our junior Senator when asked to help an important public health measure. On this occasion he publicly proclaimed that he would not play politics with the public health of Massachusetts.

FLYING DOCTORS AND NURSES

In Australia a service to rural communities for medical and nursing care has been perfected by certain of the large manufacturing interests. The territory adjoining large centers has been divided into squares and the squares numbered. When a call is received for a physician or nurse an airplane is dispatched at once to the given square with a passenger who is fitted to look out for the individual in need. They call these aerial visitors "Flying Doctors and Nurses." The question is being agitated of asking the government to take over this service. Not long ago a well known surgeon in Baltimore, in the United States, received a call to go to Cambridge, Maryland, to operate on a man suffering with gangrene of the gall bladder. The surgeon stepped into an airplane, and was in Cambridge, sixty miles away, across Chesapeake Bay, in an hour. By rail or road it would have been twice as far. Within two hours he had removed a gall bladder which was on the point of rupture. A little more time and the patient would have been in a hopeless condition with general peritonitis.

May not the use of the airplane help to solve the scarcity of medical and nursing care in rural regions, now so much in the public mind? Landing places must be provided in towns otherwise inaccessible, as a prerequisite to assistance by way of the air.

UNDERSTANDING THE CHILD AND HIS NEEDS

Under the above title a course of fifteen lectures has been arranged by eminent experts on child health under the direction of J. Mace Andress, Ph. D., with the co-operation of the Massachusetts Society for Mental Hygiene. These lectures are to be given on successive Tuesday evenings at eight o'clock at Boston University, 688 Boylston St., beginning September 30, 1924.

The subjects and speakers are as follows:

September 30. "Understanding the Child's Mind." By J. Mace Andress, Ph. D., Assistant Professor, Health Education, Boston University.

October 7. "Understand the Child as a Whole." By C. Macfie Campbell, M. D., Director, Boston Psychopathic Hospital.

October 14. "Importance of the Pre-School Years." By Douglas A. Thom, M. D., Director of Habit Clinics, Boston Community Health Association, and Director of State Division of Mental Hygiene.

October 21. "Mental Hygiene of the Home." By Ernest R. Groves, Professor of Sociology, Boston University.

October 28. "Mental Hygiene for Parents." By Abraham Myerson, M. D., Professor of Neurology, Tufts Medical School.

November 4. "Intellectual and Emotional Training of the Child." By A. Warren Stearns, M. D., Assistant Professor of Neurology, Tufts Medical School; Chief of Clinic, Department of Nervous and Mental Diseases, Boston Dispensary.

November 11. "Mental Hygiene of the School-Room." By E. Stanley Abbott, M. D., member of the Executive Committee, Massachusetts Society for Mental Hygiene; former Medical Director of Pennsylvania Society for Mental Hygiene.

November 18. "The Physical Needs of the Child." By Carl Schrader, State Supervisor of Physical Education.

November 25. "Adolescent Struggles at Adjustment." By George K. Pratt, M. D., Medical Director, Massachusetts Society for Mental Hygiene.

December 2. "Understanding the Backward Child." By Walter E. Fernald, M. D., Superintendent, Massachusetts School for Feeble-Minded, Waverley.

December 9. "The Backward Child in the School." By Ada M. Fitts, Director of Special Classes of Retarded Children, Boston.

December 16. "Understanding the Delinquent Child." By Augusta F. Bronner, Ph. D., Judge Baker Foundation, Boston.

January 6. "The Role of Endocrines in the Child's Emotions." By Karl M. Bowman, M. D., Chief Medical Officer, Boston Psychopathic Hospital.

January 13. "Why Social Agencies Need to Understand the Child." By Suzie L. Lyons, Chief of Social Service Department, Boston Psychopathic Hospital.

January 20. "The Child's Right to be Understood." By J. Mace Andress, Ph. D., Assistant Professor, Health Education, Boston University School of Education.

This course of lectures is one of the most important additions to the campaign now under way designed to promote the stability, usefulness and happiness of future citizens. This campaign is one of the most valuable preventive schemes ever devised, for the sane mind of the average citizen is the greatest assurance of human progress.

If parents would learn and apply the principle governing the education and development of the child, personal and national disasters would be avoided to a great extent.

Every person who may be concerned in the management of children should, if possible, attend these lectures or read the addresses.

CORRESPONDENCE

AMERICAN ASSOCIATION OF OBSTETRICIANS, GYNECOLOGISTS AND ABDOMINAL SURGEONS

Kansas City, Mo.

Editor, Boston Medical and Surgical Journal:

A nation-wide movement for improved conditions in material welfare is being inaugurated through the combined efforts of a joint committee representing the American Gynecological Society, the American Child Health Association, and the American Association of Obstetricians, Gynecologists and Abdominal Surgeons.

An appeal is being made to the secretaries of the State medical associations to enlist the coöperation of their members, and also of the constituent county medical societies to stress the subject of obstetrics in the programs of their meetings and try to have more papers and discussions on the topics vital to this most essential branch of our work.

The reason for the propaganda is that recent statistics are published showing a deplorably high mortality in maternity work in our country. A Washington report gives the United States the unenviable position of third from the highest death rate in both sepsis and eclampsia among the seventeen civilized nations of the world. These two accidents are almost absolutely preventable. Among the reports from sections where pre-natal care is taught and where aseptic care is observed in labor the mortality is reduced one-third to one-half the average in the same region.

So many other features, while not so tragic, demand reform in obstetrics that the committee hopes within five years that not only the mortality of mothers and children may be reduced just as the profession has cut down the death rate in typhoid fever, tuberculosis and diphtheria in recent decades, but also that obstetrics may be again placed on the plane with internal medicine and surgery, a dignity which it formerly occupied in the colleges and in the profession, as one of the three great branches of the healing art.

This is a work of education, and it demands the coöperation of teachers and specialists in obstetrics general practitioners, nurses, and the general public, to accomplish so ambitious a program.

A copy of the Annual Report to the American Association of Obstetricians, Gynecologists and Abdominal Surgeons is sent under separate cover, detailing some of the conditions found and showing the more hopeful outlook for the future.

(Signed)
Fred L. Adair, M.D., Minneapolis,
Henry Schwarz, M.D., St. Louis,
Robert L. DeNormandie, M.D., Boston,
Geo. W. Kosmak, M.D., New York,
Frank W. Lynch, M.D., San Francisco,
Ralph W. Lobenstine, M.D., New York,
Wm. Clark Danforth, M.D., Evanston, Ill.
Geo. Clark Mosher, M.D., Kansas City, Mo.

LONDON LETTER

(*From Our Regular Correspondent*)

ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION

The ninety-second annual meeting of the British Medical Association opened at Bradford, one of the large industrial centers, of the north of England, on July 18 last, when the representative body met to consider the medico-political questions of the year. Dr. R. Wallace Henry occupied the chair.

Among the matters discussed was that of legal liability in medical certification. Dr. David Roxburgh of Marylebone proposed and Dr. W. J. Leighton of Preston seconded a motion to the following effect: 1. That the Council of the Association be instructed to take such steps as shall cause the liability of medical practitioners to actions at law for damages for issuing bona fide certificates to cease. 2. That the methods employed to attain that end may include continuously repeated advice to all practitioners not to issue certificates except on evidence which is certain to convince a judge and jury; for example, that a patient suffering from homicidal mania or suicidal tendencies must first have succeeded in satisfying his ambition, or that a patient suffering from smallpox must first have communicated the disease to another person, etc.; and 3. That alternatively the law shall at once be so modified as to recognize that certain certificates are issued in the public interest, which includes that of the patient; that practitioners issuing them are public servants; that the public authorities accept the whole of the responsibility for their errors; that actions shall only be against the public authority, and that, if it be required, additional powers be given to the General Medical Council to deal with medical practitioners. Dr. Roxburgh was of the opinion that the institution of proceedings against a medical man for the expression of an honest opinion was no part of statutory law, and he proposed his motion as a means of driving home to the public that if the medical certifier is to be tried by a jury the evidence shall be such as will satisfy the jury. He dwelt on the psychological stress of the atmosphere in such trials and its effect on judge and jury. The motion as framed, when put to the meeting, was lost by a large majority.

Dr. C. O. Hawthorne of Marylebone then proposed and Dr. F. W. Goodbody of Marylebone seconded a motion to the effect: That the provision of a certificate under the Lunacy Acts by a qualified medical practitioner should be an act having the legal status of testimony given by a witness in a court of law, and should not render the practitioner liable either to any civil action or to any criminal charge, except in so far as the certificate may be shown to contain statements of essential importance which are proved to be inaccurate and to have been made with a wilful and deliberate intention to deceive. Dr. Hawthorne pointed out that partial protection to the medical signer of a certificate of lunacy would be secured by the introduction of the clause, "in good faith and with reasonable care." Moreover, if an action was brought, the judge of the High Court would squash proceedings if the practitioner could satisfy the Court that there was no ground whatever for the suggestion that he had failed to act in good faith and with reasonable care. However, these two provisions were not adequate, because, if there were some verbal or technical law either in the certificate or in any other part of the proceedings, the case might be forced into court. In short, no one signed a lunacy certificate without having before his eyes the fear that the signature might bring on him the penalty for an illegal action.

Dr. Hawthorne suggested that the protection which was now partial should be made complete, and that the medical practitioner should be placed in the same position as a witness who has given testimony in a court of justice. That is to say, for what he does in his capacity as a certifying practitioner he should not be exposed to the chance of a legal action. He contended that in signing such a certificate he was only acting the part of a witness. The issue rested with the authority before whom he gave evidence and it was open to this authority to accept or reject this evidence or to delay action until after further inquiries had been made. It is the voice of the law that sends the patient into a lunatic asylum, and the medical man is only a witness. Attention, too, was drawn to the fact that the judicial authority who took part in the proceedings was completely protected. He was free from criticism or from challenge by the person whom he had sent to a lunatic asylum. If the judicial authority enjoyed complete immunity from legal challenge, surely the medical authority should have the same measure of protection.

Mr. W. E. Hempson, solicitor to the Association explained the law, which appears to be by no means clear, at least not to an individual unversed in its intricacies. However, the point urged by Dr. Hawthorne seems to be that no action should be permitted to be raised without official authority to that end. Mr. Hempson thought, although he did not appear confident, that there was a way out of the difficulty, which he explained

Dr. Brackenbury drew attention to the question of negligence. What about the case, he asked, where a doctor had so neglected his duty as to make only a perfunctory examination, where he had been negligent in getting the information on which to found the certificate? The statement in the certificate might be inaccurate but might be bona fide. The resolution, it seemed to him, would allow the negligent doctor to get off scot free.

Mr. Hempson, the solicitor, said he thought that Dr. Hawthorne was aiming at the highest he could get. He thought it very probable that they would have to accept less. Of course, if they got a change on the lines of Dr. Hawthorne's resolution the question raised by Dr. Brackenbury would arise. What they wanted was a change in the law as near Dr. Hawthorne's proposals as they could get, with modifications to provide for the point raised by Dr. Brackenbury.

The resolution on being put to the meeting was agreed to unanimously, and the British Medical Association Council was asked to consider the question of preparing evidence to lay before the Royal Commission.

In a session dealing with the organization of the Association it was stated that the total membership to date was 27,533, being the highest number yet recorded.

The hospital policy of the Association was debated at length at the session of the afternoon of July 19. A great deal of the discussion that took place would be of little interest to American readers. It was stated by Mr. Bishop Harman that during the past year a questionnaire had been issued to 902 hospitals in England and Wales in the following terms: 1. Does the hospital enter into arrangements for the treatment of State, municipal and similar patients; that is, Ministry of Pensions, War Office, Board of Education, Ministry of Health, Admiralty, municipal or other local authority? 2. Do the members of the medical staff receive any form of remuneration in respect of above? If so, in what form? (a) Directly from the authority concerned? (b) Honorariums? (c) Staff fund? 3. Does the hospital receive payments from employers of labor, approved societies, or insurance companies in respect of patients? 4. Do the members of the medical staff receive any form of remuneration in respect of above? If so, in what form? 5. Does the hospital receive payment through a contributory scheme in which there is a stated return, that is, contributory insurance scheme. 6. Do the members of the medical staff receive any form of remuneration in respect of above? If so, in what form? 7. Does the hospital receive payment through a contributory scheme in which there is an implied return, that is, workers' mass or periodical contributions? 8. Do the members of the medical staff receive any form of remuneration in respect of above? If so, in what form? 9. Is there any system of inquiry into the means of each patient?

Nearly one-half of the hospitals had responded with information, from which it appeared that: 1. Of 237 hospitals entering into arrangements for the treatment of State, municipal and similar patients, in 73 per cent. some remuneration was being paid to the medical staff. 2. Of 217 hospitals receiving payments from employers of labor, approved societies or insurance companies, in 7 per cent. some remuneration was paid. 3. Of 62 hospitals receiving payments through contributory schemes with stated return, in 11 per cent. some remuneration was paid. 4. Of 110 hospitals receiving payments through contributory schemes with implied return, in 11 per cent. some remuneration was being paid to the medical staff. Taking the four categories together, the inquiry showed that in 25.6 per cent. of hospitals some form of pecuniary recognition was already being made to members of the medical staff.

Dr. Harman went on to point out that while the work of hospital staffs was often eulogized, few people, he thought, fully realized its value to the community at large. A former chairman of the representative meeting calculated that at his hospital at Cardiff the work of the staff was worth £350,000 ($1,750,000) to the community; on the same basis the cash value of the work of the medical staffs of hospitals in England and Wales worked out at £54,000,000 ($270,000,000) a year. He believed that voluntary hospitals today were better than ever they had been, and that they were destined to be better still.

In the discussion that followed, arguments on both sides were urged heatedly. It was contended that the passing of the resolution moved by Dr. Harman—that contributions to hospitals by employers of labor or massed or periodical contributions by employees should be considered as contributions for services rendered or to be rendered—would make difficulty by involving medical staffs of hospitals in a definite contract which they would be bound to fulfill; that the staff under the voluntary system could not expect all the advantages of State or municipal officers. Per contra, it was pointed out that voluntary hospitals now contained only 5 to 10 per cent. of the class for whom they were originally intended; that when a business firm contributed £1000 ($5000) a year to a hospital it meant "we expect you to look after our workmen"; that five guineas ($26.25) a week was now quite a usual charge to hospital patients, and that workingmen when they realized the situation would themselves prefer to pay the staff a fair wage for a fair day's work.

The question was well debated from both standpoints, and the voting on the resolution was taken by roll-call, when there were 87 for, 49 against, and 12 abstentions. The requisite two-thirds majority not having been obtained, the chairman announced that the motion was a resolution by the representative body and not a declaration of policy by the Association.

The questions of massed contributions and the taxing of individual payments for the benefit of the hospital staff were discussed. With regard to the taxing of individual payments, Dr. Harman proposed on behalf of the Hospitals Committee a resolution as follows: Where the board of a voluntary hospital accepts payments from individual patients other than paying patients for whom in many hospitals arrangements have been made, the members of the visiting medical staff should receive recognition of their services, either in the form of an agreed honorarium or by means of a percentage of all such payments being passed into a special fund. Such honorarium or fund can be allocated in any manner which the visiting staff may determine.

In the discussion on this resolution and an amendment to it moved by Dr. E. W. Fothergill of Brighton various opinions were expressed. Dr. T. W. Lipscomb, New South Wales, remarked he was afraid that if the resolution was carried it would be found to embarrass the profession overseas. Some of them who had had experience of Labor government felt that the best way to avert nationalization of hospitals, which they did not want, was the retention of their status as honorary officials. Dr. N. Macfayden, East Herts, said that if the resolution were carried it meant that, in theory at least, the voluntary system was dead and they were no longer free agents. Theirs was essentially a charitable profession. Dr. J. D. Comrie said that in Edinburgh there had been a change of view on the part of the hospital medical staffs. In the ordinary hospitals they were no longer dealing with the "sick poor," who were to be found in the Poor Law infirmaries, but with the well-to-do artisan class who were able and often anxious to contribute to the hospital. Dr. C. Buttar agreed with Australia. It was not good tactics to fight Labor control by taking Labor money. Mr. Souttar thought the adoption of the resolution would render nugatory the whole hospital policy. Dr. Brackenbury summed up. The point, he said, they had to decide was whether personal contributions from patients which did not reach the level of the cost of maintenance ought or ought not to be ear-marked for contributions to the State fund. He had previously spoken on the side of those who thought that such a contribution ought not to be so ear-marked. He had been converted and explained why.

The resolution was carried by the necessary two-thirds majority and becomes the policy of the Association. The carrying of this resolution is of historic importance as far as the voluntary system in England is concerned. It is the first drastic modification of that system. However, if the voluntary system is to continue it must be greatly modified to meet with the vastly changed conditions. It is not the laboring classes who need hospital care and treatment now, so much as a large proportion of the struggling middle classes. Moreover, the fact must be taken into account that the trend of medical practice nowadays is towards hospital treatment for, perhaps, all but the minor ailments. The only way, then, that the voluntary system can survive is to modify it and modernize it in conformity with altered conditions and in accordance with the immense advance of medical and surgical science.

On July 22 Mr. J. Basil Hall, M.A., M.C.H., Cambridge, Hon. Consulting Surgeon Bradford Royal Infirmary, delivered his address as President of the British Medical Association. He said in part that the British Medical Association had done an inestimable service in binding together the great mass of the medical profession into a solid professional unity. Politicians talked about a League of Nations, but in medicine nations counted as nothing. The fight against disease was carried on wherever the human race existed, and they recoginzed that each did his best according to the knowledge vouchsafed to him. Mr. Hall thought they were tending to lose their veneration for the past; the medical student of today could not visualize the conditions against which his predecessors fought. In their eagerness to obtain scientific knowledge and in their confidence in modern methods they were losing sight of the traditions of the past. Some of them might be quite untrue in the light of modern knowledge, but many of them still remained as a sure and solid foundation of good practice. During the Victorian era two great discoveries were made which paved the way for the surgical triumphs of today, and every civilized nation now paid homage to Lister, and no less to Pasteur, whose names were known and revered throughout the whole world.

He did not think, the speaker went on to say, that their recent military experiences had done much to advance their usefulness in dealing with sickness in civil life. The whole war period brought into focus an exaggerated idea of the importance of surgical technic, and cramped the development of surgical judgment. The treatment of every injury and disease became standardized. It was a bad training for the newly qualified student of medicine; each became a mere cogwheel in a great machine designed to fulfill a special purpose. During the most impressionable period of their career they worked amongst all the sensational excitement associated with military service, and civil practice was now an irksome task for them. Hence was largely derived the widespread desire to practise some form of specialism, which had become an idol which all and sundry worshipped.

To the layman the term "specialist" had become a cabalistic word which he repeated on every possible occasion. There was, however, one specialism which he frequently failed to appreciate at its proper value, the specialism of general practice. It required more knowledge of human nature and more experience over a wide field of observation to make a first-class general practitioner than the public had any cognizance of. Clinical observation threatened to become a lost art, and radiography and all the modern scientific methods were good servants, but bad masters. He would insist, therefore, that their present failing was an overconfidence in modern technic and a lack of appreciation of the value of that wisdom which could only be obtained by personal observation and experience. He urged those of the younger generation to think more and observe more for themselves, as their forefathers did, and not be so ready to bow the knee in fanatical worship of so-called scientific methods of investigation and treatment. Experience begotten by patient observation would teach them the real value of scientific methods and their limitations.

At the close of his address the President presented the Stewart Prize to Professor Edward Mellanby of Sheffield for his important discoveries on the relation between rickets and dietetic deficiency; and the Gold Medal of Merit, the highest reward of the Association, to Dr. H. Brackenbury of London, for his distinguished services to the Association and the medical profession.

THE PROBLEM OF THE CONTAGIOUS DISEASES OF CHILDHOOD

The Boston Health Department devotes considerable time every year to painstaking efforts to give visiting foreign public health officials and students a clear perspective of the work of the Department, its aims, costs and probable accomplishments. The results of our efforts, in so far as we may come to know the results, are not always what we expected. A recent experience of this sort suggests the propriety of trying to explain to our own people, who are paying the bills, certain phases of our communicable disease problems,—what we are trying to do with them and what we are probably accomplishing.

A recent distinguished foreign visitor credits the personnel of the Boston Health Department with a strong faith in the efficacy of placarding and conventional quarantine prescriptions in preventing the spread of common communicable diseases. As a matter of fact, the supervising officers of the Department continually have to contend with nothing less than a positive conviction on the part of our medical personnel that the immunity to communicable diseases which develops in an urban population is really accountable for the supposed results of prescribed methods of official procedure for preventing the spread of such diseases.

The procedure referred to is largely prescribed by law. The practice of placarding certain contagious diseases dates back to an old State statute of 1792 enacted in the hope that official warnings might possibly tend to check the spread of a terrifying smallpox epidemic then prevailing. Much of the other official routine procedure in these cases results from later State laws which virtually assume that the spread of a contagious disease may be stopped if physicians will report to the health officials cases of contagious diseases as they come to the attention of physicians.

A person who enters the employ of a municipal health department soon comes to be very much impressed with the following facts: Every contagious disease is contagious before a positive diagnosis can be made. No precautions are likely to be taken for the protection of others, nor is a physician likely to be called before alarming symptoms have developed. By this time it will usually be found that the patient has exposed a considerable number of persons to infection and, so far as his immediate household is concerned, has probably done about all the damage he is capable of doing.

In the course of their work the Health Department officials do discover contagious diseases in their incipiency, but in most instances the appearance of representatives of the Health Department in a case results from the legally prescribed notification from a physician. A health official usually appears within twenty-four hours of the mailing of such a notice, but this often means after a case of scarlet fever or diphtheria has been exposing others to infection for a week, after a case of typhoid fever has had opportunity to infect others for perhaps three weeks, and usually after a case of measles has probably ceased to be contagious.

On the discovery of a case of a contagious disease a belated attempt to quarantine or isolate the case is made in view of the protection of others.

A large part of the family population of Boston lives in a few rooms on a single floor of houses occupied by more than two families having toilet facilities in common. It often seems to the health official that the number of rooms occupied by a family is in inverse ratio to the number of people in the family. Local hospital facilities are far inadequate to provide hospitalization for cases whose home conditions are unfavorable for isolation of the sick. Isolation must therefore be undertaken in home conditions where effective quarantine may be theoretically impossible, but where it has small chance of being effectively carried out. In homes where conditions for the isolation of the sick seem particularly favorable, our inspectors and nurses are often chagrined to see secondary cases appear in the household through the failure of a willing but busy and untrained mother to adhere consistently to her instructions.

Whenever a case of contagious disease develops in a home, every other member of the household presumably susceptible to infection becomes by reason of his exposure to infection a potential danger to the neighborhood.

Such exposed contacts of a contagious disease case in a tenement may be temporarily excluded from schools and from certain occupations, but effective quarantine of all such contacts is impracticable under the conditions of life and industry as they exist in a large city like Boston.

The physician or nurse who enters the employ of the Health Department soon learns that a considerable proportion of common contagious diseases like measles, scarlet fever, whooping cough, diphtheria and tuberculosis, for example, never come to the knowledge of the health officials at all, and many of them never to the attention of a physician. Every child who reaches the age of fifteen years in Boston may be safely assumed to be immune to measles. In 75 per cent. a definite history of an attack of measles may be obtained, making it probable that the remainder owe their immunity to unremembered or unrecognized attacks. Even on the assumption of 75 per cent. of recognized attacks it would appear that less than one-third of the cases of measles occurring annually in Boston are officially known. Comparison with other large American cities would indicate that there is nothing peculiar about Boston in this respect. While urban immunity to scarlet fever is not nearly so dependent on recognizable attacks of the disease as in measles, the extent to which the Health Department is constantly uncovering unreported cases of scarlet fever shows that many recognizable cases of this disease must occur without being seen by physicians or even suspected by parents of children.

Opportunities for contracting all sorts of infections are practically illimitable in a crowded city.

If swab cultures were to be taken from the throats of all the people in Boston in winter and those whom the laboratory would report as microscopically positive for diphtheria bacilli were to be quarantined, a large proportion of the industrial, social and educational life of the city would be paralyzed.

It would seem that a new Health Department employee also might be pardoned for exhibiting some skepticism regarding the supposed efficacy of conventional methods for "controlling tuberculosis" when he learns that of the people known to have died of tuberculosis in Boston about one-third do not come to official knowledge as cases of tuberculosis until within a month of death.

These and other similar considerations which might be cited certainly ought to arouse skepticism in anybody with any business sense, as to the real value of the customary belated attempt to control the spread of contagious diseases by maintaining a surveillance over such persons as happen to be known to be capable of communicating these diseases. There are, however, certain considerations of a different sort which should also be taken into account.

The placarding of a case of contagious disease and the visit of the health officials have the effect of publicly proclaiming that particular disease to be a matter of public interest and deserving of official action.

The attention of the neighborhood is directed to the household as a possible source of danger. The school authorities are warned and to some extent at least precautionary measures for the protection of school children made possible. The routine investigations and reports of Health Department physicians and nurses are constantly disclosing foci of infection previously unknown and making it possible to remove them. When effective isolation of the sick is clearly impossible or where prescribed quarantine restrictions are neglected or ignored, the summary power of the Health Department to remove to hospital a person "dangerous to public health" is always exercised. All such measures may tend, of course, to reduce appreciably the opportunities for contact with contagious diseases. It is conceivable that they may result in raising the average age of the exposure of children to infection, but probably a far more important effect of the official attitude toward these diseases is its educational value. People are not only taught to regard "children's diseases" seriously, but directly, as well as indirectly, official activities serve to bring about appropriate care and treatment of the sick on the part of both family and physician. It is impressed upon both that the spread of contagious diseases may be prevented by the methods which are constantly being successfully employed to prevent *cross infections* in hospitals devoted to the care of different kinds of diseases, and through the teaching of public officials people are constantly becoming better acquainted with these methods and the essentials to their success. The one important feature in which instruction has fallen down is in the failure to make it clear that it is to be expected that any communicable disease is contagious before it has reached a recognizable stage and that the only way to prevent the spread of a communicable disease in the home is to regard any symptoms of sickness without a perfectly obvious cause as the beginning of a possibly contagious disease and to take effective precautions accordingly.

The rational justification for the expenditure of money for public health purposes is not philanthropic motives but definite, tangible evidence that, directly or indirectly, the expenditure is producing results of commensurate economic value. In considering the justification of taxing the people for the amount of money now being expended in connection with the surveillance of the class of contagious diseases often referred to as "children's diseases," the following is about all one can find in looking for tangible evidence of the results of either public or private expenditure for this purpose.

Flare-ups of the common contagious diseases of childhood occur in different sections of the city with considerable regularity. They are to be expected about every three, five or seven years, depending on the disease. They were formerly even more pronounced than today. They are apparently due to the accumulation of non-immune children in the district. When flare-ups happen to occur in two or more sections of the city the same year the result becomes very noticeable in published annual statistics as an increased prevalence of that disease in the city. For this reason caution must be used in making comparisons as to the prevalence of these diseases or their mortality at present and at some particular year in the past.

Making allowance for increases in child population, it would seem that the mortality from diphtheria is averaging about one-fourth of what it was twenty-five years ago. This showing is unquestionably due to a great extent to the use of anti-toxin in treating the sick and in immunizing contacts. It seems also safe to assume that the showing would not have been the same had it not been for Health Department activities in stimulating the use of anti-toxin for both these purposes. Going further back, however, in such a statistical inquiry, it would appear that the diphtheria death rate was already markedly decreasing when anti-toxin was discovered.

Deaths attributable to scarlet fever are probably somewhat less than half what they were twenty-five years ago, yet there is nothing like the diphtheria anti-toxin to credit with this decrease. Here, again, we find statistical evidence that mortality from this disease also was then already declining thirty years ago.

Statistical evidence of a decrease in mortality from measles in the last twenty-five years is not so striking, but if we go further back more statistical evidence of the decreased seriousness of measles may be found.

The economic importance of a disease is not to be estimated entirely by the mortality. Children may be physically spoiled by these contagious diseases, even if they do not die. In this matter we have statistics, reinforced by a practical consensus of clinical testimony, that diphtheria, scarlet fever and measles are none of them such serious diseases as they used to be. The mortality from these diseases occurs largely in children of the pre-school age. The usual tragic story is that an older child brings the disease into the house and the baby takes it and dies. Raising the age at which children contract these diseases will undoubtedly decrease their seriousness. This may have been actually taking place, but apparently there is neither statistical nor clinical evidence that the activities of health agencies, official or private, are having such an effect. In fact, the more carefully one examines supposed evidence of the effect of the customary activities of official or private health agencies in efforts to control or modify common communicable diseases, the more probable it appears that the results of these activities are inappreciable in comparison with other factors which are operative. So far as the decreasing seriousness of scarlet fever and measles is concerned, if not of diphtheria, it would seem that we are witnessing, just as in the case of the decreasing seriousness of tubercular infection, the operation of a biological process, influenced by heredity and possibly somewhat by environment, dietary habits and economic conditions.

When we come to consider that other serious disease of childhood — whooping cough — it is by no means clear that this disease is any less serious than it used to be. If a larger proportion of the deaths due to whooping cough were properly attributed in death certificates to this disease instead of to broncho-pneumonia, students of vital statistics would begin to realize that the mortality from whooping cough may be really greater today than from diphtheria.

The deaths and the permanent impairment of a few hundred young children annually cannot be dismissed as of little economic interest, even though they be unproductive beings, but their theoretical loss to the potential productive power of the city is of relatively small practical importance economically, in comparison with many times that amount of mortality and disability from tuberculosis and acute infections of the respiratory tract and their complications among young adults in the prime of life who have had but a brief opportunity to show any return for public and private capital which has been invested in their physical development, education and training for productive work.

There is but one logical conclusion to be drawn from the situation discussed in the foregoing. Business common sense dictates that we ought to be trying to utilize to greater economic profit the money and energy now being expended in endeavors to control by quarantine methods the class of contagious diseases herein considered. It may be inadvisable to discard abruptly time-honored practices and ignore these diseases officially. But in any event we should not disregard the lesson taught by nature, whose biological process is already operating to make these diseases less serious in our urban population. No smallpox epidemic was ever checked without vaccination. Knowledge of the manner of the spread of typhoid fever did not serve to make that disease any less serious as a military problem until a method of producing immunity artificially was developed. This experience certainly justifies the expenditure of public funds within reasonable limits to develop possibilities of producing immunity artificially to these contagious diseases of childhood. This is the present policy of the Boston Health Department.

A simple and efficient means of immunizing against diphtheria already exists, and, chiefly through the efforts of the Health Department, is now available to anyone in Boston who may wish to secure such protection. The practicability of a similar method of producing immunity against scarlet fever now seems to be not far off. By a comparatively simple procedure it is now entirely practicable to so modify a developing case of measles as to render the disease an innocuous affair, and the successful development of a practicable method of producing artificially a permanent immunity to measles does not seem improbable. Artificial immunization against whooping cough seems quite within range of possibility, even if it has not been already accomplished.

In trying to carry out the policy just indicated, it is a part of the Health Department creed that it is the duty of the Department to see that all such methods of artificial immunization are made available as soon as their practicability is demonstrated; that they are made available through the medical profession, hospitals and other agencies which are designed to supply forms of medical treatment in this city, and that the public is educated and encouraged to make use of such means of protection against disease. It is equally a part of the Department creed, however, that it is a parental duty and not a governmental function to attend to the immunization of children except so far as the undertaking of such work may seem justifiable for educational purposes.

Victor Safford, *Deputy Commissioner*,
Medical Division, Boston Health Department.

COLLODION IN IVY POISON

Mr. Editor:

Every year about this time one finds in the medical journals long articles on poisoning with rhus toxicodendron, the so-called poison ivy. Remedy after remedy is suggested for the relief of the intense dermatitis with the intolerable itching that so often follows contact with this (in New England at least) very common plant.

Some twenty years ago it was my fortune, or, more properly, misfortune, to be severely thus poisoned on both arms. One after another, I tried every application suggested by sympathetic and presumably friendly fellow physicians with very little relief, until, having by chance a bottle of flexible collodion in my hands, I, in desperation, poured it over the affected parts.

Relief was so instantaneous and complete that I have ever since used this treatment in all cases brought to my attention, but have never seen it spoken of by those who have studied into the causes, spread and treatment of what is often no trivial matter. Itching is at once relieved, swelling diminished, and the disease runs its usual course in a week or ten days, while, as there is no temptation to spread it abroad by rubbing, it dies where it started and without extension throughout the neighborhood.

The collodion should be renewed if and as it wears off, and one can go about one's business in comfort, which one cannot do when swathed in wet bandages.

Ivy dermatitis is often no trivial affair. Patients are not so infrequently confined to their beds, and even hospital care becomes necessary. Twenty years' experience has shown me that efficient treatment with flexible collodion will invariably confine the disease to the original points of contact, give complete relief to the intense itching, and allow the victim to await with patience the termination of what is, under these conditions, a self-limited disease.

It is understood that to touch unaffected parts with infected fingers will start new foci of infection and that every poisoned surface must be covered to obtain the desired effect.

SAMUEL B. WOODWARD.

MISCELLANY

CONNECTICUT DEPARTMENT OF HEALTH

WEEKLY MORBIDITY REPORT FOR THE WEEK ENDING AUGUST 30, 1924

(Including all cases reported before 11 A. M., Tuesday, September 2, 1924)

Diphtheria

Fairfield County	
Bridgeport	2
Stamford (C)	1
Hartford County	
Berlin	1
Hartford	2
Manchester	1
Middlesex County	
East Haddam	1
New Haven County	
Ansonia	1
Meriden (C)	1
New Haven	2
Wallingford (B)	1
Waterbury	2
New London County	
North Stonington	1
Tolland County	
Rockville	1
State total	17
Last week	23

The following diphtheria bacilli carriers were reported:

Hartford	1
New Haven	5

Typhoid Fever

Fairfield County	
Bridgeport	1
Fairfield	1
Greenwich	1
Stamford (C)	1
Stamford (T)	1
New Haven County	
Beacon Falls	1
Naugatuck	1
New Haven	7
Wallingford (B)	1
New London County	
Jewett City	1
New London	1
State total	17
Last week	7

Scarlet Fever

Fairfield County	
Bridgeport	5
Fairfield	1
Stamford (C)	1
Hartford County	
Manchester	1
New Britain	1
West Hartford	1
New Haven County	
East Haven	1
Madison	1
New Haven	1
State total	13
Last week	15

Measles

Hartford County	
Hartford	2
Middlesex County	
East Hampton	1
Westbrook	1
New Haven County	
New Haven	4
New London County	
Stonington	1
State total	9
Last week	9

Whooping Cough

Fairfield County	
Bridgeport	1
Stamford (C)	1
Hartford County	
Farmington	1
Hartford	2
Middlesex County	
Westbrook	3
New Haven County	
Guilford	1
Meriden (C)	1
New Haven	16
North Haven	1
State total	27
Last week	41

Other Communicable Diseases

Chancroid	2
Cerebrospinal men.	1
Encephalitis epid.	2
Influenza	1
Mumps	3
Pneumonia (lobar)	5
Poliomyelitis	14
Tuberculosis (pul.)	28
" (other forms)	1
Gonorrhea	21
Syphilis	9

WEEKLY MORBIDITY REPORT FOR THE WEEK ENDING SEPTEMBER 13, 1924

(Including all cases reported before 11 A. M., Monday, September 15, 1924

Diphtheria

Fairfield County	
Bridgeport	8
Stratford	1
Hartford County	
Hartford	3
New Britain	3
West Hartford	1
New Haven County	
Derby	2
Waterbury	3
New London County	
Lebanon	1
New London	1
Norwich (C)	1
Stonington	1
State total	25
Last week	15

The following diphtheria bacilli carriers were reported:

New Britain	7
New Haven	1
New London	3

Typhoid Fever

Fairfield County	
Danbury (C)	1
Hartford County	
Wethersfield	1
Litchfield County	
Sharon	1
New Haven County	
New Haven	2
West Haven	1
New London County	
Preston	1
Tolland County	
Rockville	1
State total	8
Last week	6

Scarlet Fever

Fairfield County	
Bridgeport	1
Danbury (C)	1
Fairfield	1
Stamford (C)	3
Hartford County	
East Hartford	1
Hartford	3
Manchester	5
New Britain	1
Litchfield County	
North Canaan	1
New Haven County	
Hamden	1
New Haven	2
Seymour	1
Waterbury	1
New London County	
Groton (T)	1
Tolland County	
Rockville	1
State total	24
Last week	18

Measles

Fairfield County	
Bridgeport	1
Hartford County	
Hartford	1
New Haven County	
New Haven	2
State total	4
Last week	2

Whooping Cough

Fairfield County	
Bridgeport	1
Greenwich	1
Trumbull	3
Hartford County	
Hartford	3
West Hartford	2
Middlesex County	
Saybrook	1
Westbrook	1
New Haven County	
Cheshire	3
New Haven	4
West Haven	1
New London County	
Stonington	4
Tolland County	
Somers	1
Willington	4
State total	29
Last week	40

Other Communicable Diseases

Cerebrospinal men.	1
Conjunctivitis inf.	1
Dysentery (bac.)	1
Encephalitis epid.	1
Malaria	1
Mumps	14
Pneumonia (lobar)	6
Poliomyelitis	8
Trachoma	1
Tuberculosis (pul.)	40
" (other forms)	2
Chancroid	2
Gonorrhea	36
Syphilis	17

COMPARISON OF CASES REPORTED IN AUGUST WITH OTHER YEARS

	August				
Diseases	1924	1923	1922	1921	1920
Diphtheria	93	124	97	157	162
Malaria	9	9	3	4	8
Measles	38	114	131	59	102
Scarlet fever	83	87	66	82	104
Smallpox	1	12	1	—	—
Tuberculosis (all forms)	134	147	155	176	154
Typhoid fever	45	51	55	96	63
Whooping cough	148	229	149	140	488

MAINE STATE DEPARTMENT OF HEALTH

Weekly Report of Infectious Diseases for the Week Ending September 15, 1924

Chickenpox

Auburn	2
Boothbay	2
Boothbay Harbor	2
Portland	1
	7

Acute Infectious Conjunctivitis

Standish	9

Diphtheria

Belfast	1
Berwick	1
Biddeford	1
Caswell Pl.	4
Fairfield	1
Portland	1
Standish	2
	11

Gonorrhea

Biddeford	1
Dexter	1
Greenville	4
Jackman	1
Jonesport	1
Orono	2
Rainbow Lake	1
	11

Influenza

Fairfield	4
Greenville	3
	7

Mumps

Readfield	1
Waterville	1
	2

Whooping Cough

Denmark	5
Eustis	1
Fairfield	3
	9

Scarlet Fever

Lewiston	1
Webster	4
	5

Syphilis

Jonesport	1

Tuberculosis

*Augusta	1
Bemis	1
*Danforth	1
*Farmington	1
*Gardiner	1
*Greene	1
*Houlton	1
Kennebunk	1
*Madison	1
*Mars Hill	1
Mechanic Falls	1
*Old Orchard	1
Portland	2
*Presque Isle	2
*Readfield	1
South Portland	1
*St. Agatha	1
Warren	1
*Winterville	1
*Woodland	1
	22

Typhoid Fever

Bath	2
Belfast	2
Boothbay Harbor	1
Passadumkeag	1
Portland	2
Williamsburg	1
	9

Poliomyelitis

Brooklin	1
Greenville	1
Chebeague Island	1
Roque Bluffs	1
Webster	1
	5

*Cases reported by the State sanatoriums.

MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH

Diseases Reported for the Week Ending September 13, 1924

Disease	*No. of Cases*	*Disease*	*No. of Cases*
Anterior poliomyelitis	34	Ophthalmia neonatorum	25
Chickenpox	22	Pneumonia, lobar	26
Diphtheria	47	Scarlet fever	76
Dog-bite requiring anti-rabic treatment	11	Septic sore throat	2
Encephalitis lethargica	2	Syphilis	46
Epidemic cerebrospinal meningitis	9	Tetanus	1
Gonorrhea	86	Suppurative conjunctivitis	12
Measles	23	Tuberculosis, pulmonary	110
Mumps	19	Tuberculosis, other forms	32
		Typhoid fever	12
		Whooping cough	53

MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH

Resume of Communicable Diseases for August, 1924

GENERAL PREVALENCE

The diseases showing an increase over the previous month were anterior poliomyelitis and typhoid fever.

	Aug., 1924	July, 1924	Aug., 1923
Anterior poliomyelitis	39	12	26
Typhoid fever	66	49	58

RARE DISEASES

Anterior poliomyelitis was reported from Arlington, 1; Barnstable, 1; Boston, 9; Braintree, 1; Brookline, 1; Cambridge, 3; Chelsea, 1; Chicopee, 1; Everett, 1; Fall River, 4; Fitchburg, 1; Haverhill, 1; Ipswich, 1; Leominster, 1; Lynn, 1; Malden, 1; Medford, 1; Reading, 1; Somerville, 2; Spencer, 1; Waltham, 1; Watertown, 1; Westford, 1; Worcester, 2; total, 39.

Dog-bite requiring anti-rabic treatment was reported from Arlington, 1; Boston, 6; Greenfield, 1; Hudson, 2; Lowell, 10; Lynn, 1; Milton, 1; North Attleboro, 1; Watertown, 1; Winthrop, 1; total, 25.

Dysentery was reported from Boston, 2; Everett, 1; Stoneham, 1; Uxbridge, 1; total, 5.

Encephalitis lethargica was reported from Boston, 2; Lawrence, 1; Newburyport, 1; Pittsfield, 1; total, 5.

Epidemic cerebrospinal meningitis was reported from Boston, 2; Everett, 1; Franklin, 1; Greenfield, 1; Lawrence, 1; Lynn, 1; total, 7.

Hookworm was reported from Boston, 4.

Malaria was reported from Boston, 7; Milford, 1; Pittsfield, 1; total, 9.

Pellagra was reported from Boston, 2.

Rabies was reported from Milford, 1.

Septic sore throat was reported from Boston, 9; Newton, 1; total, 10.

Tetanus was reported from Boston, 1; Chelsea, 1; Methuen, 1; Quincy, 1; Salem, 1; Winthrop, 1; total, 6.

Trachoma was reported from Boston, 2.

Trichinosis was reported from Boston, 1; Cambridge, 1; total, 2.

DISTRIBUTION

All Communicable Diseases

	Aug., 1924	Aug., 1923
Total cases (all causes)	2,843	3,182
Case rate per 100,000 population	71.0	80.2

Certain Prevalent Diseases

Diphtheria:	Aug., 1924	Aug., 1923
Total cases	380	559
Case rate per 100,000 population	9.5	14.1

Cities and towns noticeably exceeding their median endemic indexes*:

Cambridge	(12)	16	Lawrence	(9)	13
Marlboro	(0)	15	Medford	(3)	7
Quincy	(4)	8	Clinton	(0)	8
Everett	(4)	8	Worcester	(24)	29
Malden	(6)	20	Greenfield	(1)	3

Measles:	Aug., 1924	Aug., 1923
Total cases	153	271
Case rate per 100,000 population	3.8	6.8

Scarlet fever:	Aug., 1924	Aug., 1923
Total cases	237	282
Case rate per 100,000 population	5.9	7.1

Cities and towns noticeably exceeding their median endemic indexes*:

Newton	(1)	7	Dalton	(0)	4

Typhoid fever:	Aug., 1924	Aug., 1923
Total cases	66	64
Case rate per 100,000 population	1.6	1.6

Cities and towns noticeably exceeding their median endemic indexes*:

Palmer	(0)	7	New Bedford	(1)	5

Whooping cough:	Aug., 1924	Aug., 1923
Total cases	251	375
Case rate per 100,000 population	6.3	9.4

Cities and towns noticeably exceeding their median endemic indexes*:

Fall River	(9)	16	Springfield	(11)	15
Salem	(2)	6	Gt. Barrington	(1)	4
Concord	(0)	17	Greenfield	(0)	9
Tyngsboro	—	7			

Tuberculosis, pulmonary:	Aug., 1924	Aug., 1923
Total cases	457	395
Case rate per 100,000 population	11.4	10.0

Tuberculosis, other forms:	Aug., 1924	Aug., 1923
Total cases	64	61
Case rate per 100,000 population	1.6	1.5

*The Median Endemic Index is obtained by arranging in arithmetical sequence the monthly totals of reported cases for the past five years and selecting the middle figure. The numbers in parentheses after the name of each city and town indicate the median endemic index for that city or town; the numbers without parentheses indicate the cases reported during the current month.

AMERICAN CONGRESS ON INTERNATIONAL MEDICINE

THE committee in charge of the program for the 1925 convention of The American Congress on Internal Medicine to meet May, 1925, has requested each hospital in Washington to take part in making up the program of clinics and demonstrations for the 5,000 visiting physicians who are expected in Washington at that time.

Garfield hospital has already formulated a tentative program embracing clinics on metabolic diseases, the latest work in the prevention and cure of scarlet fever, and recent progress in the treatment of angina pectoris. St. Elizabeth hospital is planning to accommodate 1500 of the visitors with 10 clinics each morning devoted to all branches of internal medicine in addition to special mental and nervous conditions. There will also be exhibits of specimens and a series of brain preparations showing the evolution from the simplest to the most complex structure.

The program of the United States Naval Hospital will include Electrocardiograms and basal metabolism room demonstrations, exhibits in medical zoölogy, exhibits in gross pathology, exhibits in serology and clinical chemistry, trophical diseases—demonstrations of chlorine treatment; preventitive medicine methods—demonstration; exhibits in dental diagnoses, and dental clinic, and exhibit in aviation medicine.

The Washington medical men intend to put on a program which will demonstrate to the rest of the country that nowhere is medical work more progressive than in the nation's capital.

HUDSON TOWERS HOSPITAL HOTEL, 1,000 PARK AVENUE, NEW YORK

MORE than 100 physicians and surgeons of New York have combined to relieve the lack of hospital accommodation for private patients and as a result Hudson Towers hospital-hotel is now nearing completion and will be opened early next year, representing a capital investment of $3,500,000.

New York takes ample care of charity patients for there are more than 20,000 beds in the various hospitals but there are but 750 beds for private patients. There are numerous private hospitals or sanitariums which are under no sort of supervision, but they do not begin to supply the sort of care private patients demand.

Of the 7,000 doctors in New York City, only about 1,000 have any connection with hospitals and others cannot attend their patients during hospital treatment. There should be an open institution where all ethical doctors can care for their patients and it is to fill this need that Hudson Towers is being constructed.

The idea of an "open" hospital was conceived by Dr. Leo Buerger, attending surgeon at Mt. Sinai Hospital and staff member of the Post Graduate hospital. According to Dr. Buerger it is no longer practicable to care for sick people at home. The cost of living and the situation in domestic service has driven a large number of people to live in hotels where there are not the facilities for caring for sick people. Where can the young woman, who is not a charity patient, go when her baby is born? There are some hospitals which have private rooms available for this purpose, but all too few for the demand. "In Hudson Towers," said Dr. Buerger, "the mother will be able to stay under the same roof with her sick child, and the father can occupy a suite with his wife and new born child. There are to be suites for the accommodation of relatives and for patients who feel they can afford them for themselves. The doctor, or nurse, will of course dictate the length of time a relative may stay in the room with a sick person. There will be no heartbreaking hospital rules to banish the worried relative, to leave the sick child crying for its mother or send the troubled wife to her desolate home while her husband lies suffering miles away. In other words, the new conditions will substitute sunshine for sombreness in the environment of a sick person, a psychological condition so long advocated by Dr. Alexis Carrel of the Rockefeller Institute.

"As to the furnishings, they'll be spotless and will not be ridiculously bare and cold.

"The distinctive feature that we are aiming at is the human factor in the care and treatment of a patient, on the physical side combining the comforts of a private home and the service of a first class hotel."

TESTS OF EMOTIONAL BALANCE AND MENTAL STABILITY

Tests of emotional balance and mental stability will be used at Colgate University this fall in addition to tests of intelligence. Freshmen come to the campus a week before the regular opening of school partly for these tests.

The emotional tests are the product of data that have been gathered during the past three years by Dr. Donald A. Laird, now Associate Professor of Psychology at Colgate. Dr. Laird has studied the emotional reactions of students at the universities of Iowa, Yale, and Wyoming and at Washburn College and out of this experience has devised a series of tests for measuring mental balance.

There are 128 items of emotional behavior studied and the students can be diagnosed as introvert, psychasthenoid, neurasthenoid, schizoid, and hysteroid.

Although he has not given his tests to Leopold and Loeb Dr. Laird is of the opinion that they might be shown to be schizoid and that if tests such as he has developed had been used during their college days the Franks Case would not have happened.

"These two boys," Dr. Laird says, "are not an exception. Most persons do not realize that last year one student out of every thousand had to be taken out of college and to a mental hospital on account of a psychosis."

"Tests such as we are using at Colgate will help detect and prevent these cases. Periodical testing two or three times a year will reveal those who are developing unhealthy emotional reactions and a morbid outcome can be prevented."

Vassar College, under the direction of Miriam C. Gould, is going to use some of Dr. Laird's tests this year.

BOSTON TO TAKE OVER BABY HYGIENE ACTIVITIES

COMMUNITY HEALTH ASSOCIATION, PERFORMING NOTABLE AND APPRECIATIVE CHARITY WORK, IN NEED OF AID

The Community Health Association of Boston, which has been conducting district nursing, baby hygiene, mental hygiene, prenatal and preschool work during the past thirty-eight years, has submitted a request in effect that the City of Boston through its Health Department conduct the baby hygiene activities after September 1, 1924, in Charlestown, East Boston, North End, South End and West End Districts.

This work, which has been conducted by the Community Health Association for upwards of a quarter of a century and which has been such a contributing factor to the conservation of the health of the public generally, has been supported by voluntary contributions which of late have not been received in the volume anticipated and as a consequence the submission of the request.

The annual cost of conducting baby hygiene activities in the five districts enumerated, namely, Charlestown, East Boston, North End, South End and West End Districts, is approximately $5,000 annually, but in view of the fact that it is customary in some of the other American cities for municipalities to conduct these activities the city gladly assumes the expenditure entailed for the conduct of these activities and after September 1 the baby hygiene activities in the districts, Charlestown, East Boston, North End, South End and West End, will be conducted under the direction of the Boston Health Department.

His Honor the Mayor expresses the sincere appreciation of the people of Boston for the painstaking and unselfish character of service rendered by the Community Health Association and more particularly to the officials in charge who have been both self-sacrificing and hard working:

President, Mr. William Arthur Dupee.

Vice Presidents, Mrs. Robert L. DeNormandie, Mr. Malcolm Donald.

Secretary, Mrs. Morton F. Prince.

Treasurer, Mr. Ingersoll Bowditch.

General Director, Mary Beard, R. N.

Director Nursing, Florence Patterson, R. N.

Medical Director, Director Child Hygiene, Robert D. Curtis, M. D.

Director Vital Statistics, Mae Chapin, R. N.

The City Council at its meeting August 11 provided $18,772.59 to cover the cost of the work mentioned, and the Health Commissioner has arranged to assume the work after September 1, 1924.—*Excerpt from the August*, 1924, *Bulletin of the Boston Health Department.*

MASSACHUSETTS TUBERCULOSIS LEAGUE, INC.

To those interested in Health Education for the School Children of Massachusetts:

The National Educational Association has brought Health Education prominently before the whole educational world through its special committee and the prominence given to health education at the World Conference on Education. Health Education is now a World Power!

The Massachusetts Tuberculosis League wishes to bring before all school officials:

1. The advantages and value of the Health Crusade.
2. Our files of health educational material.
3. Our offer of service, for the loan of material to schools, for conferences on school work, etc.

The Educational Secretary is glad to confer with Superintendents, teachers, nurses and community groups interested in child health.

Additional sample material will be sent on request.

Sincerely yours,
ANNA W. JOHNSON, *Educational Secretary*
1150 Little Building, Boston.

HEALTH RESORTS OF EGYPT

WE are informed that the Health resorts of Upper Egypt—Assouan and Luxor—have now returned to their pre-war efficiency. This is of general importance, as they are well organized, and the English physicians practising during the winter season (November to March) have had great experience of the special advantages of the Upper Egypt climate in the treatment of such illness as Rheumatoid Arthritis, Kidney Disease and Albuminuria, Chronic Bronchitis, Asthma and other conditions.

It is well known that Assouan, as a health resort, has the driest climate in the world, and the results obtained are remarkable.

Medical references on the climate of Egypt will be found at length in the article "Egypt and North Africa," by Dr. Leigh Canney, in Dr. Hobhouse's "Health Abroad," published by Smith, Elder & Co., London. We are informed that Dr. Leigh Canney, who has practised for over 20 years in Upper Egypt, will be succeeded by his colleague, Dr. Percy Moore, who will be residing at Assouan during the season (November to March) in future.

Dr. Moore's summer address is Coggeshall, Essex.

The Massachusetts Medical Society

STATED MEETING OF THE COUNCIL

October 1, 1924

A STATED meeting of the Council will be held in John Ware Hall, Boston Medical Library, Wednesday, October 1, 1924, at 12 o'clock, noon.

Business:

1. Report of Committee of Arrangements for annual meeting in 1925.
2. Report of Committee on Publications and Scientific Papers for scientific program for that meeting.
3. Report of Committee on Membership and Finance.
4. Petitions for restoration to the privileges of fellowship.
5. Appointment of Auditing Committee.
6. Reports of special committees.
7. Fill vacancy in list of councilors of Bristol South District.
8. Ballot for vice-president, illegally elected June 6, 1924.
9. Letter of Robert Underwood Johnson, Director of New York University Hall of Fame, as to a bust of Oliver Wendell Holmes for the Hall.
10. Incidental Business.

WALTER L. BURRAGE, *Secretary*
Brookline, September 24, 1924.

I HOLD the unconquerable belief that Science and Peace will triumph over Ignorance and War, that nations will come together not to destroy but to construct, and that the future belongs to those who accomplish most for suffering humanity.—*Pasteur.*

UNITED STATES PUBLIC HEALTH SERVICE.

FIVE HUNDRED DOLLARS FOR A NEW MARINE HOSPITAL—OLD CONTRIBUTION MAY SOME DAY BE USED

IN 1878 a grateful patient or friend of the Marine Hospital Service (now the Public Health Service) donated $523.50 "for the benefit of the Marine Hospital at Bath, Maine." The amount was placed at interest by the Collector of Customs, and is still on deposit, because there was no Marine Hospital at Bath, Maine, and never has been, the nearest ones on that coast being located at Portland, Maine, and Boston, Massachusetts.

Practically all cities in the United States are increasing in size, and the city of Bath is no exception to this rule. It is not at all improbable that the time may come when a new Marine Hospital will be needed on the Maine Coast to serve those who go down to the sea in ships, in conformity with the Government policy established in 1798 to provide medical care for merchant seamen. Students of compound interest may compute the period necessary for the donation to grow to the necessary amount.

U. S. DEPARTMENT OF LABOR, CHILDREN'S BUREAU, WASHINGTON

$1,688,047.12 has been expended by Federal and State governments to promote the welfare of mothers and babies under the Federal Maternity and Infancy Act during the first 15 months following its passage.

This statement is made public today by the Children's Bureau of the U. S. Department of Labor. The report covers the period from March 20, 1922, when the first National appropriations became available, until June 30, 1923, and was prepared by Dr. Anna E. Rude of San Francisco, former director of the maternity and infant hygiene division of the Children's Bureau.

Federal grants to the States during this period for maternity and infancy work totaled $1,046,523.56. State appropriations made to match Federal funds totaled $641,523.56. In 1922 payments were made to 43 States, 8 of which matched the Federal grant in full or in part. In 1923, 41 States received grants for maternity and infancy work, 35 of which matched the allotment in full or in part. By June 30, 1923, all State legislatures had met and the appropriation acts passed enabled 40 States to coöperate during 1924, all but Kansas, Illinois, Louisiana, Vermont, Maine, Massachusetts, Connecticut, and Rhode Island. By action of its State legislature in July, Louisiana for the first time accepted the Act and will receive its share of 1925 Federal funds.

National administration of the Maternity and Infancy Act is vested in the Children's Bureau and has been carried out, states the report, by the bureau's division of maternity and infant hygiene, the staff of which has consisted of six people—a medical director, associate director, a public health nurse, an accountant, a secretary, and a stenographer. Plans for State work are initiated and carried out by a State agency, usually the child-welfare or child-hygiene division of the State board of health, and approved by the Federal Board of Maternity and Infant Hygiene.

It is claimed that the Maternity and Infancy Act has already demonstrated its value, according to the report, in that it has:

"(1) Stimulated State activities in maternal and infant hygiene.

"(2) Maintained the principle of local initiative and responsibility.

"(3) Improved the quality of the work being done for mothers and babies by disseminating through a central source—the Federal Government—the results of scientific research and methods of work which have been found to operate sucessfully.

"(4) Increased State appropriations with the passage of the act. From the appropriation for the fiscal year 1922, 15 States were able to accept only the $5,000 unmatched funds. Six States were able to accept only the $5,000 unmatched from the Federal appropriation for the fiscal year 1923. All of the States coöperating under the act either have already accepted more than the $5,000 unmatched allotment from the 1924 Federal appropriation, or will be able to do so. Moreover since the Maternity and Infancy Act became effective 33 States accepting it have made definite increases in their own appropriations for the welfare of mothers and babies."

State activities under the Act have included the employment of physicians, public health nurses, dentists, dieticians, health teachers and social workers, on staffs of health departments; education of the public through lectures, demonstrations, exhibits, films, etc.; maternity consultations or centers; mothers' classes, correspondence courses and other forms of educational work for mothers; training and supervision of midwives; health conferences; dental clinics; nutrition classes; inspection of maternity and children's homes. Much of the work has been directed toward taking to the rural mother and baby the health facilities which the city mother has had for some time.

MALDEN HEALTH CAMP

The Malden Health Camp concluded its fifth season on Wednesday afternoon, September 3, with appropriate exercises. These included singing and little plays by the children and speaking by adults. The chairman of the afternoon was P. B. McShane, who presented the speakers, giving in their introductions some facts with reference to the camp and its work. Mayor Kimball of Malden spoke of the pleasure of living in a city in which the men and women have had the vision to establish such an institution, "which in bettering the health of the children is a most valuable asset, to the community, the city and the country." He expressed the hope that the plan of Representative George Louis

Richards, president of the camp association, will be accepted by the citizens and that Malden will be the first community in the Commonwealth to establish a preventorium under the new law introduced into the Legislature by Mr. Richards. Dr. Sumner H. Remick, representing the State Department of Public Health, echoed the mayor's sentiment, saying that "We, at the State House, know that under this bill Malden has appointed a commission, and we hope that it may be a pioneer in this as in other health matters." Dr. Remick gave in some detail the plans of the "ten-year program." Mr. Richards, speaking as the president of the Malden Health Camp Association, emphasized the fact that Malden has 300 children who need treatment for a longer time than the two months of a summer camp. "Is it not worth while," said the speaker, "for this city, which has been a leader in day camps and in summer camps, to take quickly the next step and establish a preventorium?" For this the site of the summer camp, Waitt's Mount, is proposed, with permanent structures, and the coöperation of official and voluntary health agencies. Dr. Samuel Hoberman, camp physician, the last of the speakers, sketched popularly the essential features of the fight against tuberculosis, dwelling on the fact that it is preventable, and that such camps are important fighting grounds. A number of speakers paid tribute to the late Dr. J. Gyore Green, "without whose continual efforts and these of Mrs. Green, the Malden camp would never have been established."

THE BRISTOL NORTH MEDICAL SOCIETY

The Bristol North Medical Society held its fall meeting on September 18, 1924, at the Tavern in Mansfield.

Dr. Charles E. Mongan of Somerville addressed the society on Medical Legislation.

He said that doctors as a class do not show the interest in legislation they should and gave instances of his experience at the time the Compulsory Health Insurance was brought before the Legislature. There should be but one standard of qualifications of fitness to practice medicine, since it is not just that a regular physician must spend seven years and considerable money in acquiring an education and another spend only eighteen months. Also if the present standards are lowered it will result in the deterioration of the present moral standards of practioners. The profession must be more alive to the menace of the cults and other people who are encroaching on the ground of the qualified physician.

Dr. Eugene Kelly, public health commissioner, spoke briefly in confirmation of Dr. Mongan's arguments. He said the physicians should show more interest in the public hearings, see their personal representatives and use the direct personal letter.

A legislative committee was appointed and it was voted that the Bristol North District Society, assembled, desire to go on record that they stand unequivocably in favor of a single standard in the requirements of all who practise the healing art in this community.

Yours sincerely,
J. L. Murphy, *Sec.*,
Bristol North Medical Society.

REMOVALS

Dr. William B. Riley, of Lawrence, now has his office at 333 Haverhill St.

Dr. Hugh P. Greeley has moved from the Gay Building to 109 W. Washington Ave., Madison, Wisconsin.

Dr. Jacob Applebaum now has both residence and office at 816 Blue Hill Ave., Dorchester.

Dr. Marguerite Holman has moved from Cambridge to Jamestown, N. Y., 32 Newton Ave.

Dr. William F. Wood of Belmont now has an office at State House, Boston, Room 109.

Dr. Edward Harding has moved his office from 520 Commonwealth Ave. to 355 Marlborough St., Boston.

Dr. James B. Ayer has moved from 518 Beacon St. to 475 Commonwealth Ave.

Dr. Joseph Boch has moved from Brockton to Denver, Colo., 3800 E. Colfax Ave.

Dr. Percy F. Miller has moved from New York City to Brooklyn, N. Y., 426 85th St.

Dr. James H. Townsend has moved from Brooklyn, N. Y., to Concord, N. H., St. Paul's School.

Dr. H. C. Tooker, of Springfield, has moved from Worthington St. to 175 State St.

Dr. Alexander S. MacMillan has a residence in Waban (Middlesex South) and an office at 483 Beacon St., Boston.

Dr. Florence M. Laighton has moved from 96th Street to 749 West End Ave., New York City.

Dr. Charles A. Powell has returned from China and is at 60 Landseer St., West Roxbury.

Dr. Charles L. Moran has moved from Allston to Brighton where he is at 23 Sparhawk St.

Dr. Edward S. Emery, Jr., has moved from Chicago to Brookline (Norfolk) and has an office at 520 Commonwealth Ave., Boston.

Dr. R. S. Titus has moved his office from Bay State Road to 472 Commonwealth Ave., Boston.

Dr. Carl A. Dahlen has moved to 819 Beacon St., Boston.

Dr. John J. Dunphy now has his office at 353 Commonwealth Ave., Boston.

Dr. De Los Judson Bristol has moved his office from 374 to 355 Marlborough St.

Dr. Carolus M. Cobb has moved from 10 to 67 Nahant St., Lynn.

Dr. J. Z. Maurison has moved from 172 to 235 Main St., Springfield.

Dr. William C. Jensen has moved from Johnson City, Tennessee, to Oleau, N. Y., where he is as Rocky Crest Sanatorium.

Dr. Jacob J. Golub is now at the Beth Moses Hospital, Brooklyn, N. Y.

CORRECTION

Dr. Stephen Perkins' middle name is Erving, not Irving. He has been transferred from Boston to Bartlett, New Hampshire, where he will practice.

NEWS ITEMS

The Wachusett Medical Improvement Society.—The meeting of the Wachusett Medical Improvement Society was held at the Holden District Hospital, Sept. 17, 1924, at 7.30 P. M.

Dinner was served by the Nursing Staff.

Drs. Stone and Juress of the Rutland Sanitorium read a paper on "Signs and Symptoms of early pulmonary tuberculosis."

G. N. Lapham, *Secretary.*

Conviction of a Chiropractor.—On Sept. 17th the case of Harry L. Woodward, chiropractor, convicted for illegal practice of medicine, came up in the Superior Court. Justice David F. Dillon placed the man on probation, with the proviso that he close his office in Northampton and leave Hampshire Co. The defendant was warned that if he continued the offense he would receive the maximum jail sentence.

Paul A. Hudnut, *Secretary,*
Hampshire District Medical Society.

MASSACHUSETTS GENERAL HOSPITAL

A course in "Medicine and Pathology" will be given in the Amphitheatre of the Pathological Laboratory by Dr. William H. Smith, Visiting Physician of the Massachusetts General Hospital, and Dr. Oscar Richardson, Assistant Pathologist of the Massachusetts General Hospital.

The complete clinical records of cases coming to autopsy will be presented by Dr. Smith, who will discuss the differential diagnosis. The pathological findings will then be stated, the organs demonstrated and the pathology of the cases discussed by Dr. Richardson. This will be followed by a general discussion.

There will be nine exercises on Wednesdays in the months of October and November between 3.15 and 5.15 P. M.

The course is open to graduates in medicine and medical students of the third and fourth year, subject to their acceptance by the hospital.

Women admitted.

Application should be made to

Frederic A. Washburn, M. D., *Director,*
Massachusetts General Hospital.

BEVERLY HOSPITAL

Beverly Hospital, Beverly, Mass.—"A demonstration clinic was held at the Beverly Hospital, Tuesday, September 16, at 4 P. M., by Dr. P. P. Johnson of the hospital staff. The following cases were shown and discussed: Carbuncle of neck; Tubercular peritonitis; Appendicitis, acute; Cholecystitis, chronic; Abscess of lung; Goitre, adenomatous. Doctors were present from surrounding towns.

Ralph E. Stone, M. D., *Secretary*

OBITUARIES

MEMORIAL ON THE DEATH OF DR. CHARLES B. STEVENS

Worcester, September 19th, 1924.

At the first fall meeting of the Staff of Memorial Hospital the following memorial on the death of Dr. Charles B. Stevens was presented:—

The Staff of Memorial Hospital has suffered an irreparable loss in the death of our colleague, Dr. Charles B. Stevens. We had learned unconsciously to depend upon his skill and knowledge far more than we realized until his faithful service was suddenly withdrawn and we found ourselves without a master to guide us in handling contagious diseases. The specialty to which Dr. Stevens had devoted his life and energy is one particularly exacting and arduous. The responsibilities assumed for the individual patient and the community are as grave as any which physicians are called upon to bear. Dr. Stevens' never failing patience, his unselfish willingness to respond to all demands placed upon him and his sympathetic interest in his patients gave him an ideal equipment for his chosen specialty. It was largely due to his quiet and intelligent guidance that the problems of contagious disease in Worcester have been so wisely solved under the direction of the Board of Health. His natural reserve was so great that few understood how strong an influence he continuously exerted upon the progress of preventive medicine in our community. It will be a difficult matter to find a man to take his place who combines so much gentleness with firmness in handling the important social aspects involved in the care of contagious disease.

The Staff of Memorial Hospital desires to record its grief in the death of Dr. Stevens and to subscribe to this memorial as the expression of its profound sense of his loss to the medical profession of Worcester County.

Lester C. Miller
Kendall Emerson
For The Staff.

JOHN DUFF, M. D.

Dr. John Duff, a widely known physician of Charlestown, died at the Carney Hospital, South Boston, following an operation, September 19, 1924, at the age of sixty-four. He was born Aug. 28, 1860, in Charlestown, and had always made his home in that part of the city. He attended the Prescott and the Charlestown High schools, and entering the Massachusetts Institute of Technology was graduated S. B., with the class of '81, later entering Harvard Medical School, from which he was graduated in the class of '90. Dr. Duff, who had always enjoyed walking, made a special record while at Technology for a mile walk, holding it for eleven years. This was on a board walk, twenty laps to the mile, in the old gymnasium that stood at the corner of Boylston and Clarendon streets, where the Boston University business administration building now stands. He also did something at the shot put and tug-of-war, and was the first vice president of the Institute Athletic Association formed in 1880.

During the first two years after graduation from Tech Dr. Duff taught in the mining laboratories of the Institute, and later for four years practised the profession of mining engineering and assaying in the West, chiefly in Idaho, Colorado and eastern Oregon. He returned East and took up the study of medicine and following his graduation from the Harvard Medical he traveled abroad, studied at the Rotunda Hospital in Dublin, and returned to Charlestown, where he had ever since practised his profession. At one time Dr. Duff was superintendent of the Charlestown Free Dispensary and Hospital, and a member of its staff, and for a long time he attended to the surgical work at police station 15 in Charlestown. He was a member of the American Medical Association, Massachusetts Medical Society, Harvard Medical School Alumni Association, Massachusetts Institute of Technology Alumni Association, the Knights of Columbus and the Catholic Union of Boston.

Dr. Duff's wife, who survives him, Mrs. Julia E. (Harrington) Duff, was for several years a member of the Boston school board, and a former teacher. There are three children, two sons and a daughter, the latter, Miss May Juliet Duff, a graduate of the Normal Art School and Boston University. The elder son, Dr. John Duff, a graduate of Tufts College Medical School, is in the medical corps of the United States Navy. The other son, Paul H., was graduated from Tech, entered the Coast Artillery Corps before the war, later went to France and became a captain in the regular Army. After graduating at Harvard Medical School in 1923 he joined The Massachusetts Medical Society and opened an office with his father in Charlestown.

SOCIETY MEETINGS

Bristol South Medical Society

Next meeting will be held Thursday, November 16, 1924.

Essex North District Medical Society

October 8, 1924. Quarterly meeting at Danvers State Hospital, combined with the Middlesex North, Middlesex East and Essex South District Societies. Clinical program arranged by Dr. J. B. Macdonald, Superintendent of the Danvers State Hospital. Officers of the Massachusetts Medical Society will speak on matters concerning the welfare of the Society.

January 7, 1925. Semi-annual meeting at Haverhill.

May 6, 1925. Annual meeting at Lawrence.

Hampden District Medical Society

Meetings to be held on the third Tuesday of January and the third Tuesday in April.

Dr. William J. Mayo is expected to attend the combined meeting of the four western Districts to be held in Springfield in October.

Hampshire District Medical Society

The meetings will be held the second Wednesday of November, January, March and May.

Dr. Channing Simmons will deliver an address at the November meeting. Title: "The Treatment of Cancer, with Especial Reference to Radiation."

Middlesex East District Medical Society

Wednesday, September 17. Colonial Inn, North Reading, Mass. Dr. Lloyd Brown, "Does the Treatment of Faulty Body Mechanics Have a Place in General Practice?"

Wednesday, October 8. Danvers State Hospital. Joint meeting.

Wednesday, November 19. Harvard Club. Dr. George K. Pratt, "Community Aspects of Psychiatry."

Wednesday, January 21. Harvard Club. Dr. Franklin K. White, "Diagnosis of Gall-Bladder Disease."

Wednesday, March 18. Harvard Club.

Wednesday, April 15. Harvard Club.

Wednesday, May 13. Colonial Inn, North Reading.

Middlesex North District Medical Society

October 8, 1924. Joint meeting at Hathorne.

January 28, 1925.

April 29, 1925.

Norfolk District Medical Society

October 28, 1924. Boston Tuberculosis Hospital, Mattapan. Subject: Tuberculosis. Speakers: The Superintendent and Drs. Kelley and Remick.

November 25, 1924. Masonic Temple, Roxbury. Subject: Diabetes—with especial reference to insulin. Speakers: Dr. Joslin and probably one other.

January 27, 1925. Masonic Temple. Subject: "Some Trends of Medical Teaching and Medical Practice." Speakers: Drs. A. S. Begg and W. P. Bowers.

February 24, 1925. Masonic Temple. Subject: "The Need of Periodical Physical Examinations and How to Make Them." Speaker: Dr. Francis H. McCrudden. A second speaker will be selected to present another subject at this meeting.

March 31, 1925. Tufts College Medical School. This meeting given over to Drs. Leary and Watters for the purpose of giving us a medical examiners' talk.

Norfolk South District Medical Society

Meetings will be held the first Thursday of each month from October to May, inclusive, at 12 noon, at the Norfolk County Hospital, South Braintree.

Dr. T. O'Donnell, District Health Officer, will read a paper at the meeting to be held October 2.